RESPONSE TO PUBLIC COMMENTS

SECTION 122 ADMINISTRATIVE AGREEMENT AND ORDER ON CONSENT FOR REMOVAL ACTION

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EXECUTIVE SUMMARY

This document sets forth the response of the U.S. Environmental Protection Agency (EPA) to public comments on a proposed administrative settlement agreement ("the Agreement") pursuant to Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, ("CERCLA"), 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622, to address lead and polychlorinated biphenyls ("PCBs") contamination in the Anniston, Alabama area. The Agreement was signed by EPA and eleven potentially responsible parties in August of 2005. A mandatory 30 day public comment period commenced on September 2, 2005, and continued, after being extended for an additional 8 days, until October 11, 2005.

EPA has reviewed and considered the many public comments submitted during the public comment period. EPA has also considered a number of comments submitted after the public comment period expired. After careful consideration of the comments, and other relevant information, EPA has determined that the Agreement is fair and reasonable and furthers the purposes of CERCLA to protect public health and the environment. Accordingly, EPA has determined that the Agreement should become effective. The basis for EPA's determination is more fully explained in the body of this Response to Comments document.

The effective date of the Agreement is January 17, 2006.

Beverly H. Banister
Acting Director
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1/13/06
Date

I. INTRODUCTION

In August 2005, the United States Environmental Protection Agency ("EPA" or "Agency") and eleven corporate entities, DII Industries, L.L.C., FMC Corporation, Huron Valley Steel Corporation, McWane, Inc. for itself and as the successor by merger with Ransom Industries, L.P., MeadWestvaco Corporation, MRC Holdings, Inc., MW Custom Papers, LLC, Phelps Dodge Industries, Inc., United Defense, L.P., United States Pipe and Foundry Company, Inc., and Walter Industries, Inc., signed an administrative settlement agreement ("the Agreement") pursuant to Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, ("CERCLA"), 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622, to address lead and polychlorinated biphenyls ("PCB") contamination in the Anniston, Alabama area. After the conclusion of a mandatory public comment period and EPA's review and consideration of the public comments received, the Agency has determined to proceed with the Agreement. The Agreement will become effective on January 17, 2006. The corporations that signed and are bound by the terms of the Agreement are collectively known herein as the "Respondents."

Congress enacted CERCLA in December 1980 in an effort to address the adverse health and environmental effects arising from releases or threats of releases of hazardous substances into the environment. CERCLA empowers the Executive Branch of the federal government with broad authority to clean up hazardous waste sites. 42 U.S.C. §§ 9601-9675. Essentially, CERCLA provides the government authority to take multiple approaches to address contamination problems. First, under Section 104(a), 42 U.S.C. § 9604(a), the United States may take direct response actions to abate any actual or threatened release of a hazardous substance. Congress established a revolving fund, known as the "Superfund," in order to pay for these response actions. Second, under Sections 106 and 122 of CERCLA, 42 U.S.C. § 9606 and § 9622, the United States may obtain equitable relief, reach agreement with responsible parties administratively for cleanup of releases, or issue administrative orders requiring responsible parties to abate such releases. Third, under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), the United States is entitled to seek reimbursement for the costs of response actions from responsible parties. See 42 U.S.C. § 9607(a)(1)-(4). Liability under CERCLA is strict, joint and several.[1]

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[1] E.g., Levin Metals Corporation v. Parr-Richmond Terminal Co., 799 F.2d 1312, 1316 (9th Cir. 1986); United States v. R.W. Meyer, Inc., 889 F.2d 1497 (6th Cir. 1989) cert. denied, 110 S. Ct. 1527 (1990); United States v. Aceto Agricultural Chemical Corp., 872 F.2d 1373 (8th Cir. 1989); United States v. Monsanto Co., 858 F.2d 160 (4th Cir. 1988), cert. denied 109 S. Ct. 3156 (1989); United States v. NEPACCO, 810 F.2d 726 (8th Cir. 1986), cert. denied, 108 S.Ct. 146 (1987); New York v. Shore Realty Corp., 759 F.2d 1032 (2d Cir. 1985); Reichhold Chemicals, Inc. v. Textron, Inc., 888 F.Supp. 1116 (N.D. Fla. 1995).

The Agreement at issue herein is authorized under all of the CERCLA sections referenced above. In essence, the Agreement requires Respondents to take over the ongoing EPA residential lead cleanup, to abate certain PCB releases, to reimburse EPA for its costs in responding to the lead contamination, and to reimburse EPA for its costs in overseeing the lead and PCB cleanup required in the Agreement. The Agreement achieves both of EPA's principal enforcement objectives against the Respondents for the two CERCLA facilities in Anniston, i.e., the Anniston Lead Site and the Anniston PCB Site. First, the Agreement requires Respondents to conduct the lead cleanup at the Anniston Lead Site. Second, the Agreement requires Respondents to contribute their fair share to the cleanup of the Anniston PCB Site.

Pursuant to CERCLA Section 122(i), certain parts of the Agreement were subject to a 30-day public comment requirement. Specifically, the portion of the Agreement relating to EPA's compromise of some of the its costs, as well as the portion of the Agreement relating to EPA's determination regarding certain aspects of the liability status of Respondents, was subject to a 30 day public comment period. The law required EPA to publish notice of the proposed Agreement to provide persons who are not a party to the settlement an opportunity to comment to EPA, and also required EPA to consider those comments before EPA finalized the Agreement. Because of the considerable historic public interest in the Anniston community regarding environmental issues, EPA determined that it was in the best interest of the public for the Agency to accept and consider public comments on all aspects of the Agreement, rather than just for the statutorily mandated portions of the Agreement. Therefore, on September 2, 2005, EPA published notice of a 30 day comment period in local newspapers and in the Federal Register. The initial 30 day public comment period ended on October 3, 2005. After receiving several requests for an extension of the 30 comment period, EPA determined it was in the best interest of the public to extend the public comment period an additional eight days, until October 11, 2005. Notice of the extension was published in local newspapers on October 5, and October 7, 2005, and those persons requesting an extension were telephoned by EPA to inform them of the extension. The public comment period ended on October 11, 2005.

EPA received over 250 comments on the Agreement. Some comments expressed concern over specific parts of the Agreement, many contained questions about the Agreement, and others expressed support for the Agreement. It is important to note that none of the commentors directly opposed the cleanup operations called for in the Agreement, although some commentors expressed a desire for additional studies and work beyond what is called for in the Agreement. Therefore, EPA concluded that while there was not necessarily public agreement over every aspect of the Agreement, overall, the community supported the basic cleanup concepts embodied in the Agreement. In

general, the public comments ranged from simple statements letting EPA know a citizen's address, to detailed, lengthy, legal and technical arguments in favor of or against parts of the Agreement. Under CERCLA, there is no legal requirement on the Agency to provide written responses to public comments; rather, the law is clear that the Agency must only consider the comments before finalizing the Agreement. However, because of the increased level of public interest in the Agreement, and because there is likely to be litigation over the Agreement, EPA has determined that it is in the best interest of the public for the Agency to provide a written response to the public's comments. EPA's decision to finalize the Agreement on January 17, 2005, was reached after extensive review of a substantial amount of information available to the Agency.

Ideally, this response document will help the public more fully understand the Agency's rationale for finalizing the Agreement. However, while EPA's written response to the public comments summarizes some of the Agency's positions about the Agreement, it is by no means meant to be an exhaustive list of all of the materials and reasons that EPA relied on to make its decision. In making its final decision, EPA considered several hundred thousand pages of documents, including extensive sampling data, expert reports and opinions, legal documents, staff reports, scientific studies and treatises, modeling, historical photos and documents, affidavits and witness statements, the public comments, and many other types of documents.

II. BACKGROUND

A. The Anniston Area

The City of Anniston is located in Calhoun County, Alabama, approximately 90 miles west of Atlanta, Georgia and 65 miles east of Birmingham, Alabama. Anniston and the nearby towns of Hobson City and Oxford are essentially located in a valley drained by Snow Creek which joins Choccolocco Creek and ultimately flows into the Coosa River. The City of Anniston has a population of approximately 24,000. Calhoun County has a population of approximately 100,000. Historically, the city was an industrialized manufacturing town, which in more recent times has become a center of lighter commercial and retail activity. Demographically, the area includes significant minority and low-income communities, and therefore constitutes what EPA defines as an Environmental Justice community.

In the last twenty years, environmental problems in Anniston have been the subject of numerous government actions, private party lawsuits, and extensive media and public scrutiny. At least 23 major industrial facilities operated in Anniston over the past one hundred years, including the former Monsanto Company PCB manufacturing operation, foundries, automobile shredders, and others. These industrial operations released lead and PCBs[2] into the environment.

B. The Anniston PCB Site and Anniston Lead Site

Pursuant to Section 101(9) of CERCLA, EPA has determined that there are two "facilities" (more colloquially known as "sites") in the Anniston area warranting EPA attention under the CERCLA statute because of risks to the environment and public health. Section 101(9)(b) of CERCLA defines "facility" as the ". . .area where a hazardous substance has come to be located . . . ." One such "facility" in Anniston is the PCB contamination in the area, the other "facility" is the lead contamination. For the public's ease of understanding, EPA herein, as in most public documents, refers to the two facilities as the Anniston Lead Site and the Anniston PCB Site. Some relatively limited areas in Anniston and its environs are contaminated at levels of concern to EPA with both lead and PCBs, while other larger areas are contaminated with only lead or only PCBs at levels of concern. Therefore, the Anniston PCB Site or "facility" and the

[2]PCBs are mixtures of synthetic organic chemicals with the same basic chemical structure and physical properties ranging from oily liquids to waxy solids. Due to their non-flammability, chemical stability, high boiling point and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications. More than 1.5 billion pounds of PCBs were manufactured by Monsanto Company in the United States prior to cessation of production in 1976.

Anniston Lead Site or "facility", while distinct, do overlap geographically in areas where both lead and PCB contamination are present. The Agreement addresses both the Anniston Lead Site and the Anniston PCB Site. Most of the work under the Agreement is related to lead contamination, but some of the work relates to PCB contamination. The term "Residential Properties" is broadly defined in the Agreement to include single and multi-family dwellings, apartment complexes, schools, churches, day-care centers, community centers, playgrounds, and parks. It is important to note that under the Agreement, the government reserves all its rights to pursue Respondents for lead contamination warranting cleanup in any other part of Anniston, including at the Respondents' facilities or disposal areas.

1. The Anniston PCB Site

The Anniston PCB Site, statutorily defined as the PCB "facility", consists of the entire geographic area in Anniston and its environs where PCBs have come to be located. EPA, after extensive evaluation, believes that the vast majority of the PCBs in the Anniston area were released from the operations of the former Monsanto Company's Anniston PCB manufacturing plant. Today the former PCB plant property is owned by Solutia, Inc., (Solutia) and currently encompasses approximately 70 acres of land located about 1 mile west of downtown Anniston, Alabama.

Various industrial operations at that plant property began in the early 1900s. In 1917, the Southern Manganese Corporation (SMC) opened a plant, which began producing ferro-manganese, ferro-silicon, ferro-phosphorous compounds, and phosphoric acid. In the late 1920s, the plant also started producing biphenyls. SMC became Swann Chemical Company (SCC) in 1930, and in 1935, SCC was purchased by Monsanto Company (Monsanto). From 1935 to 1997, Monsanto operated the plant. PCBs were produced at the plant from 1929 until 1971. Monsanto's records indicate that approximately 680,000,000 pounds of PCBs were manufactured at the plant. During its operational history, the plant released tens of millions of pounds of PCB wastes into the Anniston environment through various pathways, including two large dump sites located adjacent to the plant, now known as the West End Landfill and the South Landfill. Ultimately, the production of PCBs was banned by Congress in 1976, due to concerns about the environmental and health impacts of PCBs.

In 1997, Monsanto formed Solutia, Inc., and transferred ownership of certain of its chemical divisions to the new company, including the Anniston plant. Solutia currently produces para-nitrophenol and polyphenyl compounds at the Anniston plant. The current Pharmacia Corporation (Pharmacia) was created through the merger of Monsanto Company and Pharmacia & Upjohn Corporation on March 31, 2000. After the merger,

Pharmacia transferred the agricultural operations of the former Monsanto Company to a newly created subsidiary named the Monsanto Company. To date, Solutia stills owns and operates the plant property.[3]

The complete cleanup of the Anniston PCB Site presents complicated technical issues because a large geographic area has been impacted by releases of PCBs from the former Monsanto PCB plant.[4] The area of contamination includes the former plant property and waste dumps, Snow and Choccolocco Creeks, their tributaries, floodplains, and other downstream areas, and numerous residential areas and commercial properties throughout Anniston and its environs.

Proceeding with the cleanup of PCBs throughout Anniston, particularly in regards to PCBs located in residential yards, is imperative for the protection of human health and the environment. The family of chemicals termed PCBs are believed by EPA to have systemic toxicity and carcinogenic properties. Based on evidence from animal studies, the critical non-cancer toxic effects from exposure to PCBs are associated with reduced ability to fight infection and eye toxicity. PCBs as a class of chemicals are classified by EPA as a probable human carcinogen based on the evaluation of human epidemiological evidence and animal studies. For a more complete understanding of the human health and environmental risks associated with PCBs please refer to Exhibit 1, entitled EPA Streamlined Risk Evaluation.

2. EPA's Response Actions and Enforcement History at the PCB Site

a. EPA's Investigation of the PCB Facility in Anniston

Monsanto was the only company to manufacture PCBs in the United States. Anniston is one of the two locations in the United States where Monsanto manufactured PCBs. PCBs were manufactured at Monsanto's Anniston plant from 1929 through 1971. Both locations where Monsanto made PCBs have been discovered by EPA to be heavily contaminated with PCBs and are being addressed by EPA's Superfund (CERCLA) program and by local and state agencies under various hazardous waste and public health

[3]The current Pharmacia Corporation and Solutia Inc., are liable for the actions of the former Monsanto Company as corporate successors.

[4]In addition to Monsanto's releases of PCBs, minimal amounts of PCBs also were released from other industrial operations in Anniston.

laws.[5] Monsanto's corporate successors include Solutia, Inc., which still operates a plant at the location of the former PCB manufacturing plant in Anniston, and Pharmacia Corp., a successor by merger.[6]

Monsanto's own historic corporate documents indicate that tens of millions of pounds of PCBs were released by the company into the Anniston environment through a number of pathways. These pathways include, but are not limited to, direct discharges by Monsanto to ditches and streams and other waterways, air emissions, the dumping of PCB wastes into sewers, and the release of PCB wastes into unlined, uncapped dumps from which further uncontrolled releases of PCBs occurred through wind-blown dust, run-off during rain events, open burning, and volatilization into the air. Additionally, PCBs were spread by a mechanical pathway into Anniston through the dredging of previously contaminated waterways and the subsequent use of dredge spoils as fill material and also through Monsanto's use of sand and dirt to clean up PCB spills during their production process and the subsequent use of that material as fill.

In total, over 7,000 PCB samples are known have been taken over the years by EPA or other parties in the Anniston area. EPA databases comprised of the sampling results from subsets of this overall volume of data clearly indicate that the Anniston valley, the waterways leaving the valley, and areas downstream in the Coosa River have been contaminated with PCBs above those typically found in similar urban areas. The data generally indicates that throughout these areas relatively uniform levels of PCB contamination exist. For example, the vast majority of the samples indicate levels of PCBs between non-detect and 10 parts per million (ppm). However, a small percentage of samples do indicate specific locations with higher levels of PCBs.

Initially, the PCB contamination problems in Anniston were addressed by the Alabama Department of Environmental Management (ADEM) under its delegated authority under the federal Resource Conservation and Recovery Act (RCRA)[7]. As early

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[5]The other Monsanto PCB manufacturing plant was located in Sauget, Illinois, and is now the Sauget Superfund Site.

[6]Solutia Inc.,and Pharmacia Corporation are usually herein referred to collectively as S/P. To avoid confusion, even though S/P are legally one and the same as Monsanto for CERCLA purposes, EPA, herein, refers to the present day corporate entities as S/P and the historical corporate entity as Monsanto. Making matters more confusing is the fact that the newly formed Monsanto Company is also involved in negotiations with EPA regarding Anniston CERCLA matters as a result of certain indemnification arrangements with Pharmacia Corporation.

[7]The State delegated RCRA law is the environmental program which generally governs the ongoing operations and waste disposal practices of operating businesses and any historic contamination on the operation's property. CERCLA generally is the law that governs EPA's response to historic releases from previously operating businesses

as 1985, Monsanto, after negotiations with the Alabama Attorney General, dredged 1,000 tons of heavily contaminated PCB wastes from the 11th Street Ditch as well as 100 feet of Snow Creek immediately downstream of Monsanto's waste and storm water run-off points. During the mid-1990s, ADEM became aware that PCB contamination at the Solutia plant was continuing to be a source of significant levels of PCB migration via various pathways into the Anniston environment. ADEM required Solutia to undertake a massive engineering program to address the fact that PCBs were continuing to migrate from the facility into the city and the environment. In particular, ADEM required Solutia to create a plant wide stormwater run-off control system and to cap and control releases from the two major PCB dumps on the plant property. Details of the work ADEM required of Solutia Inc., during this phase of the cleanup can be found in ADEM's records and in EPA's files.

In 1999-2000, ADEM, the Governor of Alabama, and concerned citizens, requested EPA's assistance with requiring Solutia and Pharmacia (as Monsanto's successors) to address PCB contamination outside of the Solutia plant property since the company had refused to address any off-plant site PCB contamination under RCRA.[8]

b. EPA's Response Activities at the Anniston PCB Site

Initially, EPA in February, 2000, established a Community Relations Center in downtown Anniston. The purpose of the Center was to provide concerned citizens with ready access to EPA information and personnel regarding PCB contamination. EPA then conducted a massive site investigation in coordination with ADEM, the Alabama Department of Public Health, residents of the community, the EPA Emergency Response Team, ("ERT"), the EPA Science and Ecosystem Support Division ("SESD"), the Superfund Technical Assessment and Response Team Contractor ("START"), Tetra Tech EM, Inc., and the Agency for Toxic Substances Disease Control Registry ("ATSDR").

During the site investigation, EPA took over 2,500 samples from over 800 locations, both residential and commercial, in six phases of sampling events. Phase I involved sampling by SESD at over 100 residential properties. Phase II was conducted with ADEM and involved Preliminary Investigations and/or Site Investigations of 22 current or former industrial operations in the Anniston area, and also included sampling at 10 residential locations. Phase III involved sampling by SESD at over 300 residential

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that has migrated beyond the operation's boundries. (Please note that this brief summary clearly oversimplifies a complex area of the law and is given solely as a reference for the general reader).

[8]See Exhibit 2, letter dated September 8, 1999, from ADEM to Solutia Inc., entitled "Request for RCRA Activities Associated with Remote Off-Site Residential Areas."

properties, and the Tull Chemical facility. Phase IV involved air sampling and additional residential property sampling by SESD. Phase V involved more residential sampling by SESD. Phase VI involved additional composite sampling for yards sampled previously with grab samples that indicated a soil PCB concentration above 8.5 parts per million (ppm). In addition, in this time frame, during the Spring of 2001, ATSDR performed blood lead screening on 410 children. ATSDR prepared written reports including one dated January, 2002, titled "Childhood Blood Lead Screening Program Final Report." See Exhibit 11.

c. Anniston PCB Site Partial Consent Decree

In August 2001, EPA began cleanup negotiations with Solutia Inc., and Pharmacia Corp., (from hereon "S/P") - successors to Monsanto Company. On October 18, 2002, the United States filed a lawsuit under CERCLA in the U.S. District Court for the Northern District of Alabama against S/P alleging they were liable under CERCLA for PCB cleanup throughout Anniston. Simultaneously, with the full support of S/P, the United States lodged and moved to enter a Partial Consent Decree ("PCD") for the first phase of the Anniston PCB cleanup. Third-party private tort plaintiffs who had sued S/P challenged entry of the PCD claiming it was the product of collusion between S/P and the United States and was a 'sweetheart deal' for S/P. The litigation on this issue lasted over 14 months and included over thirty pleadings, voluminous exhibits, and two days of hearings with several witnesses. During this litigation, the third-party tort plaintiffs failed to identify a single provision of the PCD that was more favorable to S/P than other EPA agreements of this kind. In fact, the evidence introduced in that litigation unequivocally showed that the PCD imposed requirements upon S/P that went beyond the scope of CERCLA, such as provisions requiring S/P to place $3.2 million into an educational trust for the children of Anniston. In addition, the PCD required S/P to fund community technical assistance grants at a level three times the level required by law. Furthermore, uncontradicted testimony by United States' witnesses showed that the PCD was consistent with the requirements of CERCLA, and with EPA model agreements of this kind, and contained all the reservations necessary to protect EPA and the United States. In fact, uncontroverted testimony made it clear that the PCD was one of the most stringent consent decrees of its kind that EPA had ever entered into.

After a year of litigation, the District Court entered the PCD and made it an Order of the Court on August 4, 2003, concluding that the PCD was fair, reasonable, and consistent with the requirements of CERCLA. Shortly thereafter, S/P began work under the PCD. The PCD is an umbrella document that incorporates a time critical removal agreement, a non-time critical removal agreement, and an agreement for a Remedial Investigation/Feasability Study ("RI/FS"). Generally, the Agency uses administrative

agreements for removals and RI/FSs, but decided to use a Consent Decree for the Anniston PCB Site based on the belief that the imprimatur of the Court would assuage community concerns and distrust.

In December 2003, only four months after signing the PCD, Solutia declared bankruptcy and informed EPA that it was stopping all of its work under the PCD. See Exhibit 3. EPA opposed Solutia's position and required Solutia to continue to perform under the PCD. Litigation ensued in both the Northern District of Alabama and the bankruptcy court in the Southern District of New York. On April 19, 2004, the District Court in Northern Alabama issued an order requiring Solutia to fulfill its obligations under the PCD. See Exhibit 4. Solutia appealed to the Eleventh Circuit Court of Appeals but the appeal was dismissed by order of the Court dated March 2, 2005. See Exhibit 5.

d. PCB Site Cleanup and Study

To better manage the cleanup and study of PCBs in the Anniston area, site project activities have been generally divided into the following four areas or phases (in CERCLA parlance these are known as Operable Units): Anniston residential properties, Anniston non-residential properties, the former Monsanto PCB plant and landfills, and Choccolocco Creek and its floodplains. Additionally, EPA has undertaken a number of activities that promote community involvement in the PCB cleanup and study process.

As of mid-December 2005, one hundred sixty (160) residential properties have been cleaned up by removing PCB contaminated soils. Another one hundred (100) residential properties have been identified that require removal of PCB contaminated soils. Approximately 2,000 residential properties have been composite sampled and tested for PCB contamination by either S/P or EPA.

Progress on non-residential properties includes cleanup of the 11th Street ditch, a ditch that received PCB discharges from the Monsanto plant. The 11th Street ditch was partially cleaned to reduce it continuing as a potential source of PCBs into the downstream waterways. EPA has also approved S/P's plan for sampling non-residential properties in certain areas of Anniston and Oxford, and S/P have begun the process of obtaining access from property owners to conduct the sampling. An ecological population and habitat survey of Snow Creek and its floodplain has also been completed.

On the Solutia manufacturing plant property, initial sampling efforts to gather additional data necessary for conducting a Human Health Risk Assessment have been completed. Once the data has been submitted to EPA and EPA determines that sufficient data has been collected, EPA will prepare the Human Health Risk Assessment. An

ecological population and habitat survey of the manufacturing plant, including the two dumps, has been completed.

In Choccolocco Creek, annual fish monitoring is conducted. EPA has approved S/P's report summarizing all the data that has been collected previously in Choccolocco Creek and its floodplain. Various technical reports have been prepared to assist in identifying data needs for the sampling program. The initial steps of the Ecological Risk Assessment, also designed to identify data needs, have been submitted to EPA for its review.

Although not specifically required under the PCD, Solutia provided $90,000 to the Community Advisory Group (CAG) and $160,000 to the Anniston Community Education Foundation (ACEF) for their administrative costs and expenses. Office space at 1525 Leighton has been remodeled and provided to the CAG and the ACEF to enable these groups to have offices within the community. Pursuant to the PCD, the first three payments to the Education Trust, totaling approximately $700,000, were paid to the ACEF. A $100,000 technical assistance grant has been awarded to the West Anniston Foundation to employ a technical advisor for the community. S/P has also paid for the development of the CAG web site.

On July 5, 2005, S/P informed EPA orally and later confirmed in writing that the S/P had unilaterally decided to cut the pace of their contaminated residential yard cleanup efforts in half from their previously approved EPA level of 20 yards per month. EPA informed S/P in writing that it opposed the work slowdown. EPA also informed S/P in writing that the work slowdown and S/P's additional failure to submit a schedule and revised Supplemental Sampling and Analysis Plan regarding the cleanup and the next phase of the RI/FS, constituted a violation of the PCD. See Exhibit 6. These issues presently remain unresolved. On November 3, 2005, S/P orally informed EPA it was temporarily increasing its cleanup pace back to 20 yards per month. However, to date, S/P have not provided the field crews necessary to perform the work at the required level of effort and have refused to put the temporary commitment in writing or to submit necessary work and sampling plans.

3. The Anniston Lead Site

The Anniston Lead Site (or facility) consists of the entire geographic area in Anniston and its environs where lead has come to be located. After extensive evaluation, EPA believes that the majority of the lead contamination in the Anniston area that is not either naturally occurring or from typical urban activities such as lead paint or leaded gasoline, is associated with the operations of various industrial operations throughout the

Anniston valley, including the plants owned and operated by Respondents. Unlike PCBs in Anniston, which are man-made and are primarily associated with the historic operation of the Monsanto plant, lead has been released into the Anniston area through a wide variety of ways. First, some lead is naturally occurring in the environment. Second, lead was used in a number of ways in urban areas - lead paint and leaded gasoline being the most ubiquitous sources. However, EPA has concluded that Anniston does have levels of lead contamination that exceed those which would be found in most similar small urban areas.

It is imperative that response actions at the Anniston Lead Site not be delayed, especially in light of the well-known adverse health effects of lead, particularly to young children. "Young children are especially vulnerable to the toxic effects of lead because their nervous systems are still developing and they absorb more of the lead to which they are exposed." See 66 Federal Register 1206, 1207, January 5, 2001 (Preamble to Final Rule for Section 403 Toxic Substances Control Act). The toxic effects of lead on children include "blood anemia, kidney damage, colic (severe "stomachache"), muscle weakness, and brain damage which can kill the child." See Toxicological Profile for Lead, Agency for Toxic Substance Disease Control Registry, July 1999, page 10.[9] Additionally, low levels of lead exposure early in life may slow mental development and lower intelligence later in childhood, and these effects may persist beyond childhood. Id. "Many of the health effects associated with lead are thought to be irreversible. Moreover, the effects at lower levels of exposure are often asymptomatic. In light of the impacts on children and the nature of the health effects, EPA's goal is to eliminate exposure to harmful levels of lead." See 66 Federal Register at 1207.

In view of the known danger that exposure to lead contamination presents, the United States is committed to getting the lead cleanup, as well as additional PCB cleanup, in Anniston underway as quickly as possible. The Agreement, discussed further below, is the best way to accomplish that goal. The cleanup level required under the Agreement for both lead and PCBs is as stringent as any residential cleanup implemented by EPA in the United States. The cleanup, when completed, will protect public health and the environment in the Anniston area.

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[9] The toxicologic and adverse health effects of lead are described in the July 1999 toxicological profile for lead developed by the Agency for Toxic Substances and Disease Registry (ATSDR) in response to Section 104(i)(3) of CERCLA. The Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99-499 (which amended CERCLA) directs ATSDR to prepare toxicological profiles for the hazardous substances most commonly found at facilities addressed by CERCLA and that pose the most significant potential threat to human health. The July 1999 toxicological profile for lead is over 600 pages long, and is available at: http://atsdr1.atsdr.cdc.gov:8080/toxprofiles/tp13.pdf

4. EPA's Response and Enforcement Activities at the Anniston Lead Site

a. EPA's Response Activities at the Anniston Lead Site

EPA began its response to lead problems in Anniston in late 2000, and eventually tasked its contractors to perform a time critical removal action to excavate lead contaminated soils from residential properties. EPA began performing the actual removal cleanup activities on April 22, 2002, according to the Pollution Reports for the Lead Site. Since then, EPA has spent over $12 million addressing lead contamination in the Anniston area. More than 2,000 residential properties have been sampled for lead. Sampling results showed that at least 342 of these properties contained soil lead concentrations above EPA's health based action level of 400 parts per million (ppm) of lead. EPA has cleaned up at least 133 of the 342 properties with elevated lead. EPA currently knows of approximately 209 residential properties that remain in need of cleanup. These properties will be addressed under the Agreement.[10]

EPA prioritized the Anniston Lead Site removal based on risk, with Tier 1 properties addressed first, then Tier 2, then Tier 3. Tier 1 properties are residential properties with soil lead concentrations greater than 1,200 ppm and a sensitive population (either a child less than 7 years old, or a pregnant woman residing at the property.) Tier 2 properties are residential properties with soil lead concentrations between 400 ppm and 1,200 ppm and a sensitive population or soil lead concentrations above 1,200 ppm and no sensitive population. Tier 3 properties are residential properties with soil lead concentrations between 400 ppm and 1,200 ppm and no sensitive population.

b. EPA's Enforcement Investigation of the Anniston Lead Site

EPA's enforcement investigation of the Anniston Lead Site began in early 2001, and has been complicated. The lead contamination was caused by at least 23 current and former industrial facilities, including the former Monsanto PCB plant, that operated over the past 100 years, under several different owners and operators. As part of EPA's investigation of these 23 current and former industrial operations in and around Anniston, EPA has sent out 38 information requests relating to the Anniston Lead Site. These industrial operations consisted mostly of foundries, but also included munitions manufacturers, automobile shredders, electroplaters, and steel manufacturers and galvanizers. EPA's investigation indicated that lead has been released into the environment through air emissions, use of foundry sand as residential fill material, and in

[10]The Agreement requires the cleanup of these 209 properties, as well further investigation to identify additional residential properties in need of cleanup, as explained above.

a more limited way, through surface water runoff. The widespread use of foundry sand as residential fill material was documented by the Agency interviewing hundreds of local citizens and through review of limited written records of foundry disposal practices. EPA also determined that for many years lead was emitted through foundry smoke stacks before any pollution control devices were placed on the foundry facilities. EPA developed air models for lead dispersion and determined that lead pollution in Anniston had occurred through an air pathway. Air modeling showed that lead emitted from the stacks would fall to the ground at the Lead Site. The area within 500 meters of the stacks were expected to have the highest concentrations of air emitted lead, but smaller amounts of air emitted lead would have fallen to the ground miles from the stacks.

c. Monsanto's Liability for Anniston Lead Facility

EPA also investigated whether Monsanto's successors, S/P, are liable for the Anniston Lead Site. EPA has determined that Monsanto was responsible for lead contamination through five probable pathways. First, for decades, the Monsanto PCB manufacturing process used hundreds of tons of lead, which was melted down during the PCB manufacturing process. EPA's National Enforcement Investigation Center (NEIC) analyzed Monsanto's lead-pot process used in the production of biphenyls and determined that lead was released into the air during this process. See Exhibit 7. Monsanto used the lead pot process from 1928 until 1964. The lead pot process released fugitive lead air emissions from two sources: lead vapors from the conversion units and maintenance on the conversion units. Monsanto's own documents state that lead was released from the process. EPA has not presently calculated a volume of lead released into the air from the lead pot process, but is certain that some amount of lead was released beyond the Monsanto plant boundaries. One commentor who submitted favorable technical comments to the Agreement on behalf of the Respondents, estimated Monsanto's lead losses to the environment from its lead pot PCB manufacturing process to be as much as 258.8 tons of lead.

The second pathway for lead contamination from Monsanto involves its previous ferroalloy production process. See Exhibit 8. The third pathway for lead contamination from Monsanto involves the company's shipping and processing of lead as a raw material for use in its PCB manufacturing process. Monsanto shipped tons of lead for use as part of the PCB manufacturing process by railroad car; the loading and unloading operations for the lead would cause soil contamination, wind-blown dust, and run-off releases of lead. Fourth, Monsanto's own documents indicate lead contamination in their waste water streams that were released directly into area waterways. Fifth, Monsanto's own documents also indicate that lead formed a portion of the products they manufactured. Therefore, their waste streams which were released into the Anniston environment by the

tens of millions of pounds were also contaminated with lead. Monsanto's lead liability is discussed in more detail later in Section V. of this document.

d. Negotiations for the Agreement for the Anniston Lead Site and the Anniston PCB Site

On June 5, 2003, while the United States' motion for entry of the PCD was pending, but after S/P had signed the PCD, S/P filed a lawsuit against 19 companies, including Respondents, seeking contribution towards S/P's costs of cleaning up lead and PCB contamination in Anniston in the United States District Court for the Northern District of Alabama, No. CV-03-PWG-1345-E. At the time, EPA had already begun investigating the companies who S/P sued. During 2003 and early 2004, EPA conducted a massive investigation of all potentially responsible parties for lead contamination in Anniston. In March 2004, just prior to EPA concluding its investigation, several of the Respondent's approached EPA to discuss settlement of their potential CERCLA liability at the Anniston Lead and PCB Sites. In response, EPA initiated the opening of settlement talks between EPA, the Respondents, and S/P. The talks centered around the transfer of EPA's on-going lead cleanup to the Respondents and S/P and also the settlement of the lawsuit between S/P and the Respondents.

S/P participated in the negotiations with Respondents and EPA for several months. Then, without warning or explanation, S/P withdrew from the discussions on November 17, 2004. S/P asserted, first in a letter, and later in pleadings to the District Court that entered the PCD, that the PCD prohibited the United States from settling with any other parties for environmental cleanup in Anniston because the Agreement might impair S/P's CERCLA contribution case because under CERCLA parties who settle with the United States are protected from contribution lawsuits for the matters addressed in the settlement. The United States disagrees with S/P, as S/P's position on this issue is contradicted by the plain terms of the PCD, the facts of the case, CERCLA, and case law. S/P raised this issue with the District Court which entered the PCD by sending the Judge a letter invoking informal dispute resolution under the PCD. On November 17, 2004, the District Court issued an order directing Special Masters to assist the United States and S/P in resolving the dispute.

The United States met with S/P and the Court's Special Masters in December 2004. Several briefs were filed by both sides, and the Court issued another ruling on March 8, 2005, requiring both sides to discuss the dispute. S/P in its pleadings asked the Court to enjoin EPA from continuing to negotiate any additional cleanup agreements with other parties that might impact their on-going PCB contribution lawsuit. During this time period, EPA continued negotiations towards a final settlement with the Respondents. In

early 2005, EPA and Respondents reached agreement on the essential terms of the Agreement. On May 2, 2005, the United States filed a Notice of Compliance in the District Court, and informed the Court that EPA believed it had complied with its orders and was intent on going forward with the Agreement unless the Court ruled that it could not.

On May 9, 2005, S/P filed a motion with the Court asking that the United States be held in contempt of Court for continuing its negotiations for the Agreement. On June 1, 2005, the District Court held a hearing on S/P's motion. The Court did not hold the United States in Contempt, but issued an order from the bench prohibiting EPA from moving forward with the Agreement for thirty days. The Court also requested that the parties submit additional briefs by June 16, 2005. The Court then stated that it would issue a ruling after the thirty days regarding whether EPA could move forward with the proposed Agreement or not.

The day after the hearing, on June 2, 2005, the Court issued a written order requiring the United States to resort to the formal dispute resolution procedures set forth in the PCD regarding the meaning of the contribution provisions of the PCD, and prohibiting EPA from moving forward with the proposed administrative settlement for the Anniston Superfund Sites for thirty days. In the June 2nd Order, the Court ruled that S/P would not have signed the Consent Decree if they knew EPA could settle with other parties and impair S/P's contribution lawsuit. On June 6, 2005, EPA served Defendants with its Statement of Position in accordance with the dispute resolution provisions of the PCD and in compliance with the Court's Order. EPA and S/P also submitted additional briefs on the contribution dispute, and EPA submitted its Waste Management Division Director's final decision on the dispute.

On Friday, June 30, 2005, the District Court issued an "Order on Contribution Dispute Between the Parties," holding that S/P are entitled to pursue contribution claims against other PRPs for PCB contamination in the Anniston area; that the United States efforts in negotiating a separate settlement with some of these PRPs was a repudiation of the PCD; and that "upon Motion by Defendants, this Court will suspend Defendants' obligations under the [PCD]." To date, S/P has not made any Motion to suspend the PCD. The United States continued to move forward with the process of finalizing the Agreement. The Agreement was signed by EPA on July 27, 2005, and the Department of Justice on August 2, 2005, and becomes effective after a public comment period on January 17, 2006.

III. THE AGREEMENT

A. Background

Over the last five years, EPA has undertaken an enormous effort and made a tremendous commitment of resources to the environmental problems facing the Anniston community. All of the Agency's efforts have been devoted to a singular purpose: making polluters clean up the contamination plaguing Anniston in the most protective and efficient way based on sound scientific principles. The EPA has no other agenda in Anniston. EPA enters into the Agreement to address contamination in Anniston caused by at least 23 current and former industrial operations. A group of eleven companies who are liable for the current or former operations of 12 of the 23 industrial facilities are the proposed Respondents to the Agreement.[11] The Respondents are all either [i] current owners, operators, arrangers, and/or transporters, or [ii] corporate successors to former owners, operators, arrangers, and/or transporters.

Although EPA could have addressed the Respondents' liability at the Anniston Lead Site and their liability at the Anniston PCB Site in separate agreements, there is no legal requirement that EPA do so. Moreover, given the overlapping nature of the two Sites and the fact that the Respondents have liability under the CERCLA law for both lead and PCBs, EPA believes that it is a reasonable and a more efficient use of its resources to address the Respondents' liability for both Sites in one agreement. Whether EPA did one settlement for both sites or two separate settlements is a distinction of form and not substance because the end result would be exactly the same. In settling the Respondents' liability for the Anniston PCB Site, EPA has made a determination that Respondents released minimal amounts of PCBs. It is important to note that should EPA discover evidence at a later date that shows that the Respondents are not minor PCB contributors to the Anniston PCB Site, then the Agreement provides that EPA may re-open the Agreement and pursue the Respondents for additional response actions and/or costs at the Anniston PCB Site. The Agreement also does not provide Respondents with any relief or protection from any possible future government actions at any of the Respondents actual plant sites or landfills because the Agreement is limited by its terms to residential yards which are defined in the Agreement to include single and multi-family dwellings, apartment complexes, schools, churches, day-care centers, community centers, playgrounds, and parks.

[11] 11 of the remaining 23 Anniston Industrial Operations (AIOs) are defunct and Respondents in the Agreement have assumed responsibility for the cleanup of their contamination.

B. Technical Aspects of the Agreement

The Agreement achieves a comprehensive sampling and cleanup plan for the Anniston Lead Site and also provides for substantial contribution to PCB cleanup at the Anniston PCB Site to an extent that is reasonable and equitable considering all available information. Combined with the cleanup work called for in the PCD for the PCB Site entered into between EPA and S/P, the Agreement represents a significant step forward in EPA's overall cleanup strategy for the Anniston area. The PCD requires a complete Remedial Investigation and Feasibility Study (RI/FS) of the PCB problem in Anniston and will lead to the Agency's final PCB cleanup decisions. At the same time the PCD also requires the immediate cleanup of PCBs found in residential yards. Under the Agreement, residential properties contaminated with lead will be immediately cleaned up and additional PCB cleanup in yards will also occur.

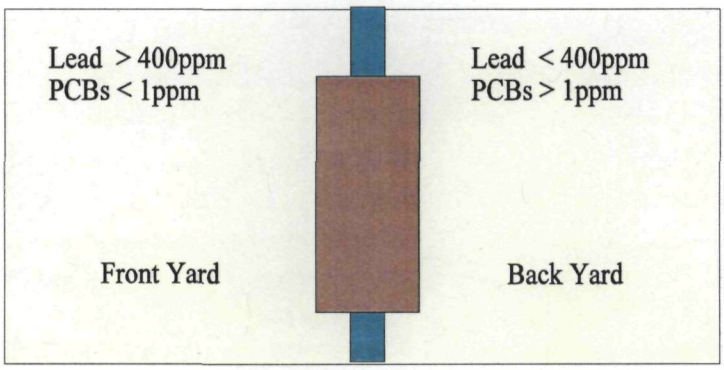
The Agreement requires the Respondents to take over EPA's ongoing time critical lead removal action at residential properties in and around Anniston, Oxford, and Hobson City. The Agreement also requires the Respondents to perform cleanup of PCB contaminated residential properties. Hence, the Agreement addresses the Respondents' liability for both the Anniston Lead Site and the Anniston PCB Site. The required cleanup of lead and PCBs under the Agreement is to EPA's most protective levels (400 ppm for lead and 1ppm for PCBs). The Agreement has the potential to address over 14,000 residential properties, and EPA projects the total value of the work under the Agreement to range from $87 million to $125 million.

The Agreement has been structured such that the work required by the Respondents is divided into 4 Zones: Zone A, Zone B, Zone C, and Zone D. Zone A has approximately 2,124 residential properties. Zone B has approximately 10,133 residential properties. Zone C has approximately 1,859 residential properties. Zone D is estimated to have 137 residential properties although that number is unclear because of the substantial number of residential properties S/P has purchased as part of previous tort settlements.

Zone A, depicted in Appendix 2 of the Agreement, represents 500 meter circles around the 23 Anniston Industrial Operations ("AIOs") listed in Appendix 1 of the Agreement. Zone A represents an area where EPA believes the greatest portion of air deposited lead from the AIOs fell. Within Zone A, the Respondents are required to sample all residential properties and will clean up every residential property with elevated lead soil levels (i.e. >400 ppm), including commingled residential properties which also contain elevated PCB soil levels (i.e. >1 ppm). EPA sampling and cleanup protocol sub-divides properties into yards; a front yard and back yard for example. Under the

Agreement, after sampling in Zone A, if only the front yard is found to contain lead greater than 400 ppm but the back yard contains PCBs greater than 1 ppm, then the Respondents must clean up both the front yard and the back yard. Figure 1 below illustrates this process.

Figure 1



Zone B, depicted in Appendix 3 of the Agreement, represents nearly the entire Anniston valley, encompassing parts of Oxford and Hobson City as well. Zone B, containing the lower lying, more flood prone areas of the Anniston valley, represents the area where EPA believes residential property owners and tenants would have utilized foundry sand as a fill material. In Zone B, the Respondents are required to perform extensive community outreach, sample all residential properties for lead and PCBs within Zone B where foundry sand is believed by homeowners or tenants to be located or is visually identified, and to clean up all such residential properties in the same manner as required for Zone A, which is described above.

Zone C, depicted in Appendix 4 of the Agreement, represents the initial residential areas being investigated by S/P pursuant to the PCD and essentially shadows the downstream discharge path from S/P's facility. Within Zone C, the Respondents are required to clean up all residential properties with elevated lead soil levels and no elevated PCB levels. Unlike Respondents' cleanup activities in Zones A and B, when S/P under the PCD identifies a residential property in Zone C which has PCBs greater than 1 ppm in one part of a yard and lead greater than 400 ppm in another part of a yard, S/P does not clean up the lead-containing part of the yard. Under the Agreement, the Respondents agree to clean up the lead only parts of yards identified by S/P's sampling in Zone C.

Zone D, depicted in Appendix 5 of the Agreement, represents a 500 meter circle

around S/P's facility and residential properties owned by S/P. Under the Agreement, the Respondents have no obligations in Zone D. Evidence described in Section V. below, indicates that S/P released lead into the Anniston environment and are liable under CERCLA for the Anniston Lead Site. As Zone D represents residential properties for which S/P has clear liability for both PCBs and lead, EPA believed it inequitable to require to the Respondents to address PCBs or lead in Zone D.

C. Legal Aspects of the Agreement

In addition to cleanup work, the Agreement also includes many important legal provisions regarding payments to EPA, covenants, contribution protection, severability, and access issues. For example, the Respondents are required to pay $3,250,000 to EPA towards costs EPA has already incurred. The Respondents are also required to pay EPA's costs implementing, overseeing, and enforcing the Agreement. These costs are often estimated to be approximately 10% of the cost of the work. All of these monies will be placed into a "special account" which EPA can use to fund future response actions in Anniston. The Respondents have also agreed to reimburse ADEM up to $200,000 per year for assisting EPA in overseeing Respondents' actions under the Agreement.

1. Covenant not to sue by the United States relating to PCB Site

In the Agreement, the United States, consistent with CERCLA Section122(g), grants Respondents a facility-wide *de minimis* covenant for the Anniston PCB Site, subject to standard EPA reservations and a reopener that allows the United States to take action against any Respondent if the United States obtains additional information that shows that such Respondent is not a *de minimis* contributor to the Anniston PCB Site.[12] In other words, the United States promises not to sue Respondents under CERCLA for PCB contamination from any of the 23 AIOs unless the United States obtains additional information indicating that Respondents are not really *de minimis* contributors of PCBs to the Site, but instead are major contributors. The covenant not to sue by the United States regarding the Anniston PCB Site is consistent with the covenant in EPA's model *de minimis* settlement, and is intended to provide Respondents a broad PCB Site-wide release in accordance with Section 122(g)(2) of CERCLA. The covenant takes effect upon EPA's issuance of the Notice of Completion.

In the Agreement, the covenant not sue by the United States is subject to Paragraph

[12]*De minimis* is a CERCLA statutory term for a specific type of CERCLA settlement for minor contributors of waste to a facility. See generally CERCLA Section 122(g). EPA's *de minimis* determination is discussed at length in Section V below.

66.a.,which contains several reservations, and Paragraph 66.b.i., which contains an unknown conditions reopener. Paragraph 66.b.ii., also contains a reopener that allows the United States to take action against Respondents based on new information that the Respondents are not *de minimis*.

2. Covenant not to sue by the United States relating to Lead Site

In the Agreement, the United States also grants Respondents a facility-wide covenant for the Anniston Lead Site, subject to standard EPA reservations and site specific reopeners that give the United States broad latitude to take future action against Respondents for non-residential lead contamination. In other words, the United States promises not to sue Respondents under CERCLA for residential lead contamination from any of the 23 listed AIOs investigated by EPA, but the United States reserves the right to take action against Respondents for non-residential lead contamination. The covenant not to sue by the United States regarding the Anniston Lead Site and the reopener/reservation provisions are interdependent, and must be read together. When read together, the two provisions release the Respondents for lead from industrial operation in soil at residential properties, and reserve the United States' rights against Respondents regarding everything else relating to the Anniston Lead Site. Specifically, the covenant for the Anniston Lead Site in Paragraph 62 releases Respondents for actions under CERCLA relating to the Anniston Lead Site, performance of the Work, and recovery of past response costs and future response costs. The reopener in Paragraph 65.b.ii., allows the United States to sue or take administrative action to seek to compel Respondents to perform response actions relating to the Anniston Lead Site, other than a response action related to lead from AIOs found in soil at residential properties. This provision is intended to allow the United States to hold the Respondents liable for any non-residential contamination they may have caused. In addition, the United States' covenant not to sue regarding the Anniston Lead Site is subject to the unknown conditions reopener in Paragraph 65.b.i. Respondents receive their covenant for past response costs upon receipt by EPA of the past response costs due under the Agreement. Respondents receive their covenant with respect to other liability at the Anniston Lead Site, including liability for performance of the Work and for future response costs, upon EPA's issuance of the written Notice of Completion.

3. Reimbursement of EPA's past response costs

Pursuant to the Agreement, Respondents will pay $3,250,000.00 towards EPA's past costs at the Anniston Lead Site. This is a significant benefit to the public because

EPA's Orphan Share policy would allow EPA to compromise all of its past costs.[13] See Exhibit 9.

4. Reimbursement of EPA's future response costs

Respondents are required to reimburse all of EPA's future response costs overseeing the Agreement.

5. Reimbursement of ADEM's future response costs

Respondents are required to reimburse ADEM's future response costs overseeing the Agreement, up to $200,000.00 per year.

6. Contribution Protection

Paragraph 74 provides Respondents with protection from contribution actions, to the extent allowed by law, for the matters addressed in the Agreement. The matters addressed in the Agreement are Respondents' liability under CERCLA for the Anniston Lead Site and the Anniston PCB Site.

7. Provisions to mitigate potential denial of access

In negotiating the Agreement, EPA was concerned about the possibility that many residents in the Anniston community would deny access for sampling and/or clean up, and that Respondents would seek a Notice of Completion despite a number of access denials. EPA mitigates these concerns in Paragraphs 85 and 86 of the Agreement. Paragraph 85 applies to sampling, and Paragraph 86 applies to cleanup.

Under the provisions applicable to denials of access for sampling, Paragraph 85 allows EPA to delay issuance of the Notice of Completion until EPA has had "sufficient time," as specifically defined, to seek access for sampling. After sufficient time has elapsed for EPA to obtain access for sampling, Respondents are entitled to a Notice of Completion.

Under the provisions applicable to denials of access for cleanup, Paragraph 86 allows EPA to exclude from the Notice of Completion the Residential Properties where

[13]An "orphan" in EPA parlance is a defunct company that can not be held responsible to pay its fair share towards cleanup. Under the orphan share policy EPA attempts to recognize that the existing companies often must pay for the defunct parties share of cleanup costs. In Anniston, more than half of the AIOs are defunct.

cleanup is needed, but not performed because of a denial of access. Paragraph 86 states that if during performance of the Work, Respondents identify Residential Properties that need to be cleaned up, but are unable to be cleaned up because of a denial of access, then EPA will exclude such Residential Properties from the Notice of Completion. Respondents shall then have the option of negotiating a payment to EPA to settle in whole or in part their obligations for such properties. The payment shall be based on Respondents' average cleanup cost per Residential Property during the last fifty (50) Residential Property cleanups prior to the submission of the Final Report. In the event of such a payment, EPA shall grant a Notice of Completion for such properties.

8. Severability clause

S/P have clearly stated their intention to legally challenge the Agreement. The severability provision in Paragraph 89 was drafted to help ensure Respondents' performance of the Work called for in the Agreement, even if any other specific portion of the Agreement is struck down by a Court. Paragraph 89 states: "If a court issues an order that invalidates any provision of this Order, or issues any type of ruling which has or may have the effect of voiding or limiting any provision of this Order, Respondents shall remain bound to comply with all other provisions of this Order not invalidated by the court's order or ruling."

IV. EPA'S SUMMARY OF COMMENTS AND RESPONSE TO COMMENTS

A. Introduction

On September 2, 2005, notice was published in the Federal Register (70 Fed. Reg. 52381) for the proposed Agreement for the Anniston Lead Site and Anniston PCB Site. The Agreement was signed by the Respondents and the Environmental Protection Agency and the Department of Justice. The public comment period closed on October 11, 2005. EPA held several public meetings in Anniston on July 8, 2005, July 11, 2005, September 8, 2005, and September 20, 2005, to explain the Agreement to the public.

During the comment period, EPA received over 260 separate letters and three petitions containing over 900 names. Some individuals signed more than one petition. EPA also received an email with twenty-two names, a letter from a church representing eighty parishioners, and a letter representing twenty-three individuals. Comments were received from individuals, civic organizations, foundations, elected officials, a church, and a law firm. Of the more than 260 comments, some stated that they supported the Agreement, including comments from a United States Congressman and two Alabama State Representatives. Others commentors either expressed concern over parts of the Agreement or were silent on whether they supported or disapproved of the Agreement. The Foothills Community Partnership, an organization created by Respondents, submitted a petition with over 350 signatures supporting the Agreement. Two petitions containing over 550 signatures expressed concern over part of the Agreement. One letter was submitted by a law firm on behalf of over 5,000 clients and expressed concern with part of the Agreement.

Over 140 letters expressed concern regarding the contamination in Anniston and/or the health effects of exposure to the contamination, but did not indicate whether they supported or disapproved of the Agreement. These individuals either 1) lived in Anniston for many years and/or 2) worked there and/or 3) have health problems and/or 4) have been exposed to contaminants. Some commentors requested compensation for their health problems or losses due to the contamination in Anniston. This type of comment was submitted by several parties including a petition signed by 327 people, a Reverend, thirty-eight individuals, and an email with twenty-two names. These comments were not related to the actual Agreement. Several other people requested general information. Most of these individuals have been mailed the FAQ sheet for the PCB Site and Lead Site.

Several parties requested an extension to the public comment period including Oxford Mayor Leon Smith, the law firm of Wiggins, Childs, Quinn & Pantazis, and

twenty-five individuals. The request for an extension was granted and the public comment period was extended eight days, from October 3 to October 11, 2005.

Several (11) commentors stated that clean up needs to happen and noted that it should happen quickly. One commentor noted that his property had already been tested and levels exceeded 400ppm.

Although EPA is only required to consider comments submitted during the public comment period, EPA considered comments submitted by Community Against Pollution (CAP) and West Anniston Foundation (WAF) prior to the comment period and more than forty comments submitted after the comment period ended, including supplemental comments from Joseph Nassif, Esq. on behalf of S/P and supplemental comments by Respondents. Additionally, S/P provided substantive written comments expressing concern with the Agreement and attached over 250,000 pages of other documents with its comments. EPA separately addresses S/P's comments in Section V. herein.

By law EPA is required to consider public comments it receives. See CERCLA §122(i), 42 U.S.C. §9622(i) and 40 C.F.R. 300.430(c)(5)(i). EPA has reviewed and considered all of the comments and prepared the following responses. Because of the large number of comments and the fact that many were redundant in nature, EPA has grouped the comments into general categories and responded to each category. EPA is only responding to comments that expressed concern with the Agreement.

After review and consideration of all the comments received, EPA has determined that the relief established by the Agreement is fair and equitable and in the public's interest because it requires the Respondents to address the Anniston Lead and Anniston PCB Sites in a technically sound, cost-effective, and timely manner in order to minimize the risks to human health and the environment.

B. Summary of Comments Supportive of the Agreement

Six commentors specifically stated that they are in favor of the Agreement, including one Federal Congressional letter supporting the Agreement. This letter of support was submitted by United States Representative Mike Rogers from the 3rd District of Alabama. Two other supportive letters came from Alabama State Senator Del Marsh from the Twelfth District and Alabama State Representative Randy Wood from District No. 36. Each of the above stated that they were opposed to any delays or extensions that would delay the approval of the Agreement. EPA responded separately to these letters. Mr. Rogers stated that he believed much of his constituency supports the Agreement. The Foothills Community Partnership submitted a petition with 359 signatures supporting the

Agreement. Several commentors stated that Anniston needs to be cleaned up but did not specifically refer to the Agreement.

C. Summary of Comments Critical of Various Components of the Agreement

Over 250 comments were received that expressed concern over one or more components of the Agreement. These comments were received from individuals, civic organizations, foundations, politicians, petitions, a church, and a law firm. The commentors included the following: 1) Citizens Against Pollution (CAP); 2) the law firm of Wiggins, Childs, Quinn & Pantazis; 3) Mars Hill Missionary Baptist Church; 4) WAF; and 5) Mothers and Daughters Protecting Children's Health (MADPCH). EPA summarizes the commentors' concerns below and then responds to each in turn. The letters and petitions expressed the following general concerns:

1. The Agreement does not provide for health studies.

2. The community should be involved in developing and approving the work plans and should be kept informed of all new events.

3. The Sites should be on the National Priorities List (NPL).

4. An RI/FS should be required for the Lead Site.

5. The 90-day Community Outreach Period is too short.

6. The area covered by the Agreement should include more properties.

7. The community was unaware of negotiations between EPA and Respondents.

8. The foundries should not have started the cleanup prior to the Agreement being finalized.

9. The Agreement should provide for long term monitoring and institutional controls.

10. The Agreement should address contaminants of concern besides PCBs and lead.

11. Other exposure pathways, such as lead based paint and dust, should be addressed.

12. Waterways and groundwater should be tested and cleaned up.

13. Miscellaneous Comments: these comments were very specific in nature and are responded to individually.

D. EPA's Response to Comments

Comment: *The Agreement does not provide for health, educational, or other studies or programs, or public education on lead exposure effects and the effects of exposure to multiple contaminants. A health or risk assessment should be required by the Agreement. Money should be placed in the existing Educational Foundation created by the PCD.*

These comments were submitted by several parties and two community groups, including two petitions signed by over 550 people.

Response: EPA agrees that health and educational programs and public education on lead exposure are important elements in addressing public health issues related to lead contamination in Anniston. However, under CERCLA, the law under which the Agreement was negotiated, EPA does not have the legal authority to require the payment of such monies or to require that Respondents provide such services to the community. Nevertheless, Respondents to the Agreement (known collectively as the Foothills Community Partnership) have indicated a willingness to discuss this issue with the community and EPA encourages you to contact the Respondents directly. They have established an office on Noble Street in Anniston.

The health risks associated with lead contamination are well known. These health risks have been widely studied, and are reported in Agency for Toxic Substances Disease Control Registry's (ATSDR) Toxicological Profile for Lead dated July 1999, as well as in numerous other publications.

Various local, state, and federal programs have been active in Anniston regarding lead paint and other types of lead contamination. Those programs provide a variety of types of medical and educational assistance to the public regarding lead contamination. Information about those programs is available at EPA's office in Anniston, on EPA's Web page, and through local and state government offices.

Comment: *The 90-day period in which to contact the Foothills Community Partnership about sampling is too short. The Agreement is unclear as to how properties will be addressed after the 90-day period ends. Residents should not have to contact foundries; all properties should be sampled. Will Respondents be required to sample if it is suspected that there is buried sand on the property? Where is the line drawn for requiring sampling of buried foundry sand?*

These comments were submitted in various forms by several parties and two community groups, including two petitions signed by over 550 people.

Response: During the ninety day Community Outreach Period, the Agreement requires the Respondents to place radio and newspaper announcements, distribute flyers, and hold public availability sessions. See Agreement at Paragraph 16.c.i. During this time any owner or tenant of a Residential Property in Zone B who believes his/her property contains Foundry Sand can place their name on an official list and their property will be sampled. Any owner or tenant who is unsure if his/her property in Zone B contains Foundry Sand can place their name on an official list and their property will be screened to determine if it contains Foundry Sand. If the property does contain Foundry Sand then it will be sampled. EPA believes that the ninety day period, combined with the Respondents' and EPA's community outreach efforts, is sufficient for all owners or tenants of Residential Properties in Zone B, if they choose, to contact EPA and Respondents about sampling. Respondents will also set up a hotline and email address, and will have a list at public meetings and at the EPA Anniston Project Office for residents to sign up to have their properties sampled.

Comment: *The area covered by the Agreement is too small; Agreement should require cleanup of commercial properties. How many properties must be sampled? Are all lots that are undeveloped excluded from the definition of Residential Properties or only those not zoned residential? The definition of Residential Properties should include vacant lots since they could be developed in the future and children sometimes play on them.*

These comments were submitted in various forms by several parties, including a law firm, a church, individuals, community groups, and a petition signed by 237 people.

Response: EPA has extensively sampled the Anniston area. Over 2,000 residential properties, numerous commercial, and more than twenty industrial facilities have been sampled, including all the foundries. Based on this extensive sampling, EPA has identified lead to be of concern only with residential properties, not with commercial or industrial properties. The few industrial facilities that need additional investigation are being addressed by ADEM. However, to the extent that EPA may determine in the future that there is a need to address lead in places other than Residential Properties, EPA retained the right in the Agreement to pursue the Respondents for such areas.

Only "Undeveloped Vacant Lots" are excluded from the definition of "Residential Properties." These are intended to be properties that, although zoned residential, have no indication that they have ever been subject to development or re-grading. As such, they are unlikely to have had Foundry Sand placed on them and there is little risk of lead

exposure from Respondents' past activities.

Comment: *The community was unaware of negotiations between EPA and the foundries until after the agreement had been signed. CAP also questioned why EPA was not entering into a global settlement with S/P and the Respondents.*

This comment was submitted by several parties, including three community groups.

Response: EPA did inform the community at various public meetings that negotiations were taking place. The concerns raised by these commentors were that EPA did not inform community members that EPA was having discussions and negotiations for cleanup at the Anniston Lead Site and that EPA did not allow the community to have input into the Agreement. In fact, EPA informed the community, including members of CAP, that EPA was pursuing potentially responsible parties (PRPs) for the Anniston Lead Site and that EPA had been negotiating with some of those PRPs. It is unfortunate that EPA was unable to provide the public with a copy of the Agreement prior to its signature. However, because the Agreement had not yet been signed by EPA or the Department of Justice, it was still a draft document and it is the United States' policy not to release draft settlement documents. Once signed however, the Agreement was subject to a statutorily required public comment period, through which the community has now had a full opportunity to provide input. It is worth noting that many of the comments received regarding the Agreement mirror comments received from the community during the Partial Consent Decree negotiations with S/P (e.g. the desire for educational funding) and EPA considered those issues in the Agreement negotiations. Further, the cleanup required under the Agreement for lead in Residential Properties is the same cleanup that EPA has been performing in the community for over two years. Likewise, the cleanup of PCBs in Residential Properties under the Agreement is the same as the PCB cleanup required under the Partial Consent Decree. Hence, the community has already been extensively involved with the cleanup.

With respect to global settlement efforts, throughout most of 2004 and at various times in 2005, EPA engaged S/P and the Respondents in global settlement discussions. Unfortunately, settlement among all parties does not appear likely at this time.

Comment: *The foundries have already started cleanup even though the Agreement is not final. Why was the community not told beforehand? How will this affect the Agreement and cleanup?*

These comments were submitted by several parties, including three community groups.

Response: The foundries (Respondents) have begun to cleanup contaminated properties even though the Agreement is not final because of the risk to health and environment posed by the lead on those properties. This will not affect EPA's ability to enforce the Agreement against the foundries.

EPA did not want to have cleanup of the Anniston community delayed. Public comments received during the comment period for the Partial Consent Decree with Solutia/Pharmacia in 2002 indicated a clear desire by the public that the cleanup of Residential Properties take place as quickly as possible. Knowing that the Agreement might not become effective for some time, and that the submission of relevant work plans and there approval could take months, EPA insisted that Respondents begin cleaning up Residential Properties already known to need clean up within 60 days of the United States' signing of the Agreement. This requirement is clearly stated in Paragraph 16.a.ii. of the Work to be Performed Section of the Agreement.

Comment: *There is no approximate completion date mentioned in the Agreement.*

This comment was submitted by an individual and a community group.

Response: Because it is unknown how many properties will be identified that need a cleanup under the Agreement and whether or not access issues will delay cleanup of any of those properties, there is no accurate way of estimating a completion date. However, EPA hopes that all cleanup activities under the Agreement will be completed within 3-5 years.

Comment: *There is concern about groundwater contamination and other areas such as creeks, ditches and landfills.*

These comments were submitted in various forms by several parties, including a law firm, a church, individuals, community groups, and a petition signed by 237 people.

Response: EPA has not yet discovered any significant groundwater or surface water issues related to lead, particularly associated with Residential Properties. However, if the RI/FS being conducted by Solutia/Pharmacia under the Partial Consent Decree discovers otherwise, EPA has reserved its rights in the Agreement to pursue Respondents if EPA subsequently determines that lead in places other than Residential Properties poses an unacceptable risk.

Comment: *The Agreement should provide for long term monitoring and institutional controls, including procedures for enforcing the controls.*

This comment was submitted by several parties, including three community groups.

Response: After completion of the cleanup called for in the Agreement, all residential soils addressed by the Agreement will contain lead less than 400ppm in the top 2 feet of soil. Consistent with EPA Region 4's practices and EPA's Superfund Lead Contaminated Residential Sites Handbook, OSWER 9285.7-50, EPA believes this provides adequate protection without the need to implement additional institutional controls.

Comment: *Why is the site not on the NPL? What happened to discussions regarding NPL status?*

This comment was submitted by several parties, including two community groups, and an individual.

Response: Listing of sites on the NPL is only necessary for sites proceeding through a federally funded remedial cleanup process. One purpose of listing a particular site on the NPL is to access federal money to conduct a federally funded remedial action. As previously noted, the cleanup at the Anniston Lead Site has been conducted by EPA as a time-critical removal action and under the Agreement the cleanup will continue as a time-critical removal action but will be conducted by the Respondents. Because the Respondents have committed through the Agreement to conduct all the necessary work, there is presently no need to list the Anniston Lead Site on the NPL. However, should it become necessary to do so, EPA reserves the right to proceed with listing the Site on the NPL.

Comment: *Other exposure issues such as dust in the home, lead based paint, and drinking water should be addressed in the Agreement.*

This comment was submitted by several parties, including a petition signed by 327 people, two community groups, and an individual.

Response: EPA is not aware of any drinking water problem at either the Anniston Lead Site or Anniston PCB Site. Drinking water is closely monitored under various environmental programs at EPA and the State. With respect to lead based paint and interior dust which is commonly associated with lead based paint, EPA typically does not take response actions under CERCLA to address such threats. However, as discussed above, there are numerous local and federal programs which provide information to communities about the threats and risks associated with lead based paint. EPA refers you to its website at http://www.epa.gov/lead and suggests that you contact the Alabama

Department of Health.

Comment: *How will other contaminants of concern be addressed? By whom? Since excavated soils will be sampled for eight RCRA metals prior to disposal, what will happen if other contaminants are found in the soil? Why is no RI/FS required? If no RI/FS is performed, harmful pollutants will remain at the Sites.*

These comments were submitted by several parties, including twenty-two individuals, a petition signed by 237 people, and three community groups

Response: With respect to other contaminants at the Anniston Lead Site, EPA, after extensive sampling, has not found that the levels of contaminants other than lead, pose an unacceptable risk to human health or the environment. EPA will continue to monitor and evaluate incoming data to determine if other contaminants are a concern. EPA does not currently believe that an RI/FS is necessary for the Anniston Lead Site because the risks of lead pollution and the cleanup technology for dealing with it are already well documented by EPA. The time critical removal provided for in the Agreement will result in a protective cleanup of residential yards at the Anniston Lead Site.

Comment: *EPA should grant an extension of the comment period.*

This comment was submitted by several parties including two municipal governments, a law firm, and twenty-five individuals.

Response: EPA did grant an extension of the comment period. The comment period was originally scheduled to end on October 3, 2005. Based on requests for extensions EPA received, EPA granted an eight day extension so that the comment period ended on October 11, 2005. This extension was published in the Anniston Star, and EPA individually notified those parties that requested an extension that one was granted.

Comment: *The Agreement should establish a Community Advisory Group and/or provide for a technical adviser or Technical Assistance Grant.*

This comment was submitted by several parties including a petition signed by 327 people, two individuals, and three community groups.

Response: Community Advisory Groups (CAGs) typically consist of a group of voluntary, interested members of an affected community. There is nothing to prevent the local community from forming a CAG with respect to the Anniston Lead Site. If the Anniston and surrounding communities want to form a CAG regarding the Anniston Lead

Site, EPA is amenable to assist the community in that endeavor.

Technical Assistance Grants (TAG) or Technical Assistance Plan Grants (TAP) are provided at Superfund Sites addressed through the Superfund remedial process. The purpose of TAG and TAP grants are to allow affected communities to receive technical support to understand and provide input on technical issues regarding remedy selection decisions. The Anniston Lead Site is being addressed as a time critical removal, not through the remedial process. Further, EPA routinely conducts residential lead cleanup as time critical removals and has been doing so at the Anniston Lead Site for over two years.

EPA has technical persons on staff during business hours at its community relations offices in Anniston. EPA encourages interested community members to visit the offices and ask questions. The Lead Site office is located at 902 Noble Street and the PCB Site office is located at 1514 W. 10th Street.

Comment: *Visual screening is insufficient to identify what properties contain foundry sand. More specifics should be added to the Agreement.*

These comments were submitted by a law firm and an individual.

Response: Pursuant to the Agreement, EPA and ADEM will provide oversight of all of Respondents' work, including the visual screening of residential properties for the presence of foundry sand. While the term "visual screening" is used, this is something of a misnomer because the screening actually involves digging into the yard to determine if there is foundry sand on the property. This is the manner in which EPA requires PRPs to perform cleanup work throughout the Superfund program, including the Partial Consent Decree. In addition, cleanup at the Anniston Lead Site and PCB Site under the Agreement will be done consistent with EPA's national guidance on dealing with lead and PCBs at residential properties. In fact, the Agreement specifically references EPA's August 2003 *Superfund Lead Contaminated Residential Sites Handbook*, OSWER 9285.7-50.

Paragraph 16.c.ii.(2) of the Agreement states that hand augers or other similar instruments will be used to dig up soil and then the soil will be visually inspected. Foundry fill is very unique and identifiable, making visual inspection an effective method for identifying the foundry fill.

Comment: *The contaminated soil removed from properties should not be disposed of or stored in Calhoun County. Precautions should be taken during transport of the contaminated soil to prevent exposure to residents and potential spills. The Agreement*

does not state where the soil will be disposed. Explain where the fill dirt originates and who the contractors are that are doing the cleanup.

This comment was submitted by several parties including two petitions signed by over 550 people, three community groups, and an email with 22 listed names.

Response: Currently, contaminated soils excavated from residential properties are being transported for disposal in St. Clair County, Alabama. Any change in the disposal location must meet the requirements of the Interim Work Plan or the final approved work plans before it can be selected in the future. See Interim Work Plan, Part 2, 9-10.

The Interim Work Plans approved by EPA require dust suppression during removal, stockpiling, and during disposal. The final work plans, which must be approved by EPA, will contain similar requirements. Any contractor hired under the Agreement is subject to EPA review and approval.

Comment: *Priority should be given to local individuals and businesses for any jobs created as part of the cleanup. Some requested that minority owned businesses be given priority.*

This comment was submitted by several parties including a petition signed by 327 people, an individual, and an email with twenty-two names.

Response: EPA encourages local businesses to submit contract bids on open jobs. EPA cannot require Respondents to give priority to local businesses, but EPA has encouraged Respondents to engage local labor and businesses to the extent practical.

Comment: *Residents should be relocated if their properties are contaminated and while their properties are being cleaned. Residents with particular sensitivities should be relocated.*

This comment was submitted by several individual commentors, including a petition signed by 327 people.

Response: Paragraph 16.h.ix. of the Agreement provides that Respondents shall relocate residents if the cleanup is to take longer than five days or if EPA determines that relocation is necessary for health or safety reasons. Paragraph 16.h.x. of the Agreement provides that other people in the immediate vicinity of the property being cleaned up may be relocated if EPA determines it is necessary for health and safety reasons.

Comment: *Property owners should receive a letter stating that their property is either not contaminated after being sampled or is no longer contaminated once cleanup is complete.*

This comment was submitted in an email with twenty-two names.

Response: Paragraph 16.g.viii. of the Agreement requires Respondents to devise a plan to inform residents of the sampling results on their property. The Respondents' plan must be approved by EPA.

Comment: *EPA should keep the community informed of the progress of the cleanup and involve the community in the decision-making associated with work plans, etc. Others wanted someone from the community to assist residents during relocation and to keep the community informed. The community wants to have access to the work plans, reports, etc. produced by the Respondents pursuant to the Agreement.*

This comment was submitted by several parties including three community groups, a petition signed by 327 people, two individuals, and an email with twenty-two names.

Response: EPA has offices at 902 Noble Street and 1514 W. 10th Street staffed with people who can answer questions. All relevant documents are available there. EPA will host regular meetings in order to keep the community informed of the lead cleanup progress; as an alternative to the regular meetings, EPA may establish a toll-free number with weekly updated information about the cleanup. EPA's Community Outreach Coordinator, presently Stephanie Brown, will work with any resident that is required to be relocated. Residents will only be relocated if the cleanup of the resident's property will exceed five days or if EPA determines that relocation is necessary for health or safety concerns.

Comment: *The people of Anniston should be treated fairly and with respect.*

This comment was submitted by seven individuals.

Response: EPA agrees with this comment and will continue to treat the residents of Anniston fairly and with respect.

Comment: *Medical care should be provided to those who have problems associated with contamination and it should be paid for by Foothills.*

This comment was submitted by an individual.

Response: Unfortunately, EPA has no legal authority to provide medical treatment or to force Respondents to pay for medical treatment.

Comment: *Respondents should provide technical and financial assistance towards the revitalization of the area.*

This comment was submitted by an individual.

Response: Other than cleanup, EPA cannot require Respondents to provide technical and financial assistance towards the revitalization of the Anniston area. However, EPA believes that the clean up of residential properties under the Agreement will promote the revitalization of the area. Technical assistance regarding cleanup activities is available at EPA's office located in Anniston that is open to the public where residents can ask questions of the EPA representatives staffing the offices. Additionally, as noted in response to another comment, EPA has encouraged Respondents to engage local labor and businesses to the extent practical. EPA believes this is also a potential source of revitalization to the area.

Comment: *The Agreement negatively impacts the Consent Decree and the ability of others to sue the foundries.*

This comment was submitted by several parties including two community groups, and two individuals.

Response: It is EPA's position that it specifically reserved and did not relinquish its rights in the PCD to obtain cleanup work from other parties at the Anniston Lead and Anniston PCB Sites. These commentors expressed concern over the perception that the Agreement supercedes or diminishes Solutia/Pharmacia's right under the PCD to seek contribution from other parties. The United States has filed numerous briefs and pleadings on this issue in the Northern District of Alabama and EPA encourages the commentors to read them. See Exhibit 10. EPA would never have agreed to the PCD if it allowed the polluters' right to seek contribution from another party to supercede EPA's authority to obtain additional cleanup of the Anniston community.

Comment: *The foundries' landfills should be sampled and cleaned. The Agreement does not address the foundries' operating facilities and the environmental controls used to prevent air emissions and runoff.*

This comment was submitted by several parties including a church, two community groups, and an individual.

Response: The operating foundry facilities are regulated by ADEM pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 *et seq.* (RCRA). As discussed above, EPA and ADEM have already evaluated the facilities to determine if action under CERCLA is warranted.

With respect to the landfills referenced in the comment, EPA assumes the commentors are referring to the landfills maintained by some of the foundries. These landfills are regulated by ADEM and Calhoun County. EPA has no information that these landfills pose any risk to neighboring properties through runoff or air emissions. EPA suggests you contact ADEM or Calhoun County for additional information regarding the operation of these landfills. Additionally, pursuant to the Agreement, Respondents must evaluate several other possible former dump areas and provide EPA with all known information about those areas. If cleanup is warranted at the dump areas, Respondents are obligated to conduct the cleanup under the Agreement. In addition, EPA has reserved its rights under the Agreement to pursue the Respondents for these areas.

Comment: *Foundries should have more liability than that assigned in the Agreement; the community should be able to hold foundries accountable. Will EPA be responsible for cleanup activities that are not addressed in the Agreement?*

This comment was submitted by several parties, including two community groups, and two individuals.

Response: EPA has considered the basis for Respondents' liability under the CERCLA for the PCB Site and the Lead Site and has concluded that the extent of Respondents' obligations in the Agreement represents a fair settlement of that liability. With respect to the Lead Site, with certain limitations, the Respondents will be addressing the entire Lead Site. As to the PCB Site, EPA has determined that the Respondents contributed a minimal amount of PCBs in comparison to all PCBs contributed to the PCB Site. The CERCLA statute encourages EPA to enter into final settlements with such parties, called "*de minimis* settlements." In the Agreement, EPA has determined that the Respondents are contributing their fair share towards the PCB Site.

The Agreement addresses the Respondents' liability to the United States under the CERCLA statute. By law, potential claims by persons that fall outside of the "matters addressed" in the Agreement should not be impacted by the Agreement.

To the extent EPA deems that additional sampling and cleanup is necessary for lead, EPA will be responsible for the sampling and cleanup of Residential Properties not covered by the Agreement, which includes Residential Properties outside of Zone B and those Residential Properties within Zone B that may be identified after the Community Outreach Period. Whether EPA or other potentially responsible parties will perform these activities if they are needed, is unknown at this time. Respondents remain potentially liable for all areas impacted with lead that are not defined as Residential Properties.

Comment: *The Agreement does not provide for the involvement of ATSDR or the Health Department.*

This comment was submitted by several parties, including two community groups, and an individual.

Response: ATSDR and the Alabama Department of Health have been extensively involved in the Anniston area and, in fact, have conducted studies related to PCB and lead health issues in the Anniston community. Please contact those agencies for information regarding those studies. Nothing in the Agreement prevents any continued involvement or action by ATSDR or the Alabama Department of Health.

Comment: *Explain what oversight issues are charged to ADEM. Why is ADEM given any oversight authority when the community does not trust them?*

This comment was submitted by several parties, including two individuals, and two community groups.

Response: EPA strives to create and promote strong partnerships with its State counterparts. Although EPA and ADEM have not yet finalized any specific division of labor for oversight responsibilities of the work required under the Agreement, EPA believes ADEM's involvement will provide valuable assistance to EPA and the Anniston community. EPA anticipates that in addition to reviewing and providing comments on work plans and reports, ADEM will assist EPA by directly providing on-site field oversight of Respondents' sampling and cleanup activities under the Agreement.

Comment: *The requirements in EPA's Lead-Contaminated Residential Site Handbook were not followed. What has taken place at other lead sites that is not happening at Anniston? How many other lead Superfund sites have not had a Baseline Risk Assessment or RI/FS before a final remedy or ROD was selected?*

These comments were submitted by several parties, including an individual, a community

group, and a petition signed by 237 people.

Response: EPA disagrees with the statement that the handbook was not followed. The technologies available for cleaning up soil lead contamination are well known. According to EPA's Lead-Contaminated Residential Sites Handbook, dated August 2003, page 38, the two long-term cleanup options for lead-contaminated residential soils are "(1) excavation of contaminated soil followed by the placement of a soil cover barrier, or (2) placement of a soil cover barrier without any excavation of contaminated soils." EPA has chosen the first option for the Anniston Lead Site. In addition, the Agreement requires that the properties be sampled and cleaned up according to the three-tiered approach, consistent with the handbook. See Paragraph 9.g. of the Agreement.

EPA has chosen a cleanup level of 400 ppm for the Lead Site, which is the lowest and strictest cleanup level used by EPA at any lead-contaminated Superfund site. The cleanup number of 400 ppm has been consistently used by EPA Region 4 as a long term residential cleanup standard.

Comment: *The Agreement does not describe how the long term remedial activities will be addressed. Is a lead contamination level of 400ppm safe over the long term if the soil is left in place? Why are no five year reviews required?*

This comment was submitted by a community group and a petition signed by 237 people.

Response: The Agreement does not include remedial activities because the Agreement addresses the Lead Site as a time critical removal action. The final cleanup level of 400ppm has been determined to be safe; therefore, no remedial activities are necessary. As noted in the response above, the cleanup number of 400ppm has been consistently used by EPA Region 4 as a long term residential cleanup standard.

Five years reviews are required for remedial actions where, after the remedial action is complete, the site is not suitable for unrestricted use and unlimited exposure. The Agreement requires a time critical removal action which EPA believes will allow for unrestricted use and unlimited exposure at the residential properties addressed under the Agreement. Therefore, five year reviews are neither required nor necessary.

Comment: *Several individuals either requested that their properties be tested, retested or noted that their properties were contaminated.*

These comments were submitted by twenty-four individuals.

Response: The Agreement requires extensive sampling and cleanup of Residential Properties. A detailed description of the sampling and cleanup requirements of the Agreement is provided in the Section II. of this response to comments.

Comment: *Blood tests should be provided for individuals that request it.*

This comment was made in an email with twenty-two names associated with it and one individual.

Response: ATSDR has the authority to undertake such activities and, in fact, there have been ATSDR studies of blood lead levels in the Anniston area. Those studies are attached as Exhibit 11.

Comment: *There should be quality controls (like those required by the Quality Assurance Project Plan for Interim Removal Action) for the lab testing and XRF. The Agreement should incorporate XRF Standard Operating Procedures contained in Appendix A because the section on XRF SOP does not reference Appendix A or require that the SOP be followed.*

This comment was submitted by a law firm.

Response: Appendix 7 of the Agreement contains the Interim Quality Assurance Plan. Final work plans are required by Paragraph 17.b. to be submitted for approval once the Agreement becomes effective. Paragraph 20.a. of the Agreement requires that all "Sampling, laboratory analyses, and XRF measurements performed pursuant to this Agreement shall conform to EPA direction, approval and guidance regarding sampling, quality assurance/quality control ("QA/QC"), data validation and chain of custody procedures."

Comment: *The sampling procedure should be improved. Combining 5 aliquots and then testing will water down samples with high lead contamination. Samples should be tested separately and with the same approach as XRF testing.*

This comment was submitted by a law firm.

Response: Sampling based on the combining of aliquots of soil is a strategy in which multiple individual or "grab" samples (from different locations or times) are physically combined and mixed into a single sample so that a physical (rather than mathematical) averaging takes place. These "composite" samples are used for the residential sampling program at the Anniston Lead and PCB Sites because they are more representative of the

type of exposure incurred on residential properties.

EPA samples properties on a composite basis to obtain a representation of the lead or PCB contamination present over the entire property, not just one particular point on the property. Because people generally spend their time on the whole property and not just in one spot, EPA requires sampling that represents the potential exposure that someone may have over the whole property.

Comment: *Was the community kept informed of the activities associated with Civil Action number CV-02-C-07490E (the PCD)? Do those activities only involve PCBs?*

This comment was submitted by a community group.

Response: The community has been and continues to be informed of the activities associated with the PCD. EPA presents information at the monthly CAG meetings, holds quarterly update meetings, and provides routine fact sheets to as many as 2000 persons on EPA's mailing list. In addition, EPA has a community center open and staffed five days a week in Anniston. The PCD addresses time critical and non-time critical removal actions at the Anniston PCB Site and the RI/FS for the Anniston PCB Site. As part of the PCD, S/P are cleaning up lead that is co-located with PCBs and S/P is evaluating lead and other contaminants as part of the RI/FS.

Comment: *Respondents should be more than de minimis parties to the PCB Site.*

This comment was submitted by a community group.

Response: EPA has determined that Respondents are *de minimis* contributors of PCBs to the Anniston PCB Site. See EPA's brief response above, as well as, EPA's detailed specific response to S/P's comments in Section V. below.

Comment: *What are Interim Controls and Work Plans? What is the connection between the Interim plans and the final Work Plans?*

This comment was submitted by a community group.

Response: The Interim Work Plans in the Agreement were created to allow Respondents to begin cleaning up Residential Properties that EPA already knows need to be cleaned up immediately. Respondents are still required to prepare and submit final work plans to EPA for approval for all of the work required by the Agreement. The only purpose of the Interim Work Plans is to begin the cleanup of Residential Properties as quickly as

possible.

Comment: *Explain Integrated Exposure Uptake Biokinetic (IEUBK) modeling and how it relates to assessment regarding lead and children's health.*

This comment was submitted by a community group.

Response: The IEUBK model is an EPA tool used to predict the blood lead level in a typical child (a child represents a sensitive receptor for lead toxicity) exposed to environmental lead. A cleanup number is derived by comparing a predicted blood lead level to the criteria blood lead level recommended by the Center for Disease Control to determine whether lead cleanup is warranted.

EPA Region 4 has historically used 400ppm as the cleanup standard for time critical removal actions involving lead in residential properties. The 400ppm standard is the strictest standard EPA has selected for any lead cleanup in the country. Since the Agreement requires cleanup to this strict standard, EPA determined that use of the IEUBK model was unnecessary.

Comment: *Drip zone testing should be required by the Agreement.*

This comment was submitted by a community group.

Response: As described above, EPA samples properties in a composite fashion to obtain a representation of the lead or PCB contamination present over an entire property, not just one particular point on the property. Because people generally spend their time on the whole property and not just in one spot, EPA requires sampling that represents the potential exposure that someone may have over the whole property.

Comment: *There is nothing in the Agreement to address recontamination issues.*

This comment was submitted by a community group.

Response: EPA does not believe that there is a likelihood of re-contamination of Residential Properties addressed in the Agreement. The majority of the lead contamination on Residential Properties in the Anniston area resulted from the distribution of lead contaminated foundry sand and lead emitted from the smokestacks of foundries and foundry-like operations, including the operations of the Monsanto PCB plant. The distribution of foundry sand has been discontinued; today foundry emissions are regulated and pollution control devices limit any air emissions from their processes.

Comment: *How was the nature and extent of lead contamination addressed?*

This comment was submitted by a community group.

Response: EPA and the ADEM have conducted extensive sampling throughout the Anniston area for lead, including the foundry facilities and other commercial properties. Based on the information gathered to date, EPA has determined that lead in Residential Properties is the only area warranting widespread response actions. However, should information be developed that indicates that lead in areas other than Residential Properties poses an unacceptable risk to human health or the environment, EPA has reserved its rights in the Agreement to pursue the Respondents for those areas.

Comment: *How will properties outside of the zoned areas of this Agreement be addressed before and especially after the community involvement period ends?*

This comment was submitted by a community group.

Response: Residential properties that are identified which are either outside of Zone B or are identified after the community outreach period will become EPA's responsibility or the responsibility of other potentially responsible parties who did not resolve their liability in the Agreement. The money that EPA is collecting from Respondents for EPA's past costs and money EPA collects for oversight costs will all be placed in a special account that EPA can access, if necessary, to conduct cleanup on these Residential Properties.

Comment: *Does the June 2004 work plan referred to in the Agreement pertain to PCBs; was it submitted by Solutia; is EPA applying this work plan to lead?*

This comment was submitted by a community group.

Response: In addition to lead, the proposed Agreement also requires the settling parties to cleanup PCBs on Residential Properties. Hence, Respondents are performing cleanup at the Anniston Lead Site and the Anniston PCB Site. In order to be consistent, EPA is requiring the Respondents to conduct PCB cleanup in the same manner as S/P conducts cleanup under the PCD. That is why the Agreement references the June 2004, work plan approved by EPA for the Anniston PCB Site. The work plan was submitted by S/P. The work plan is not being applied to lead cleanup. There is a separate Interim Work Plan for lead provided in the Agreement and there will be a separate Final Work Plan for the lead cleanup which must be approved by EPA.

V. EPA's SPECIFIC RESPONSE TO S/P's COMMENTS

A. Overview

On October 11, 2005, S/P submitted a massive set of documents to the EPA as their public comments regarding the Agreement. The comments were submitted in a mixture of "hard copy" documents filling 77 bankers' boxes, electronic documents in the form of CDs, and a computer hard drive. According to S/P, the submittal totals over 250,000 pages of material. EPA has devoted significant resources to reviewing this voluminous material, and has discovered that the vast majority of the 250,000 pages do not contain discernable comments on the Agreement. Much of the material does not even appear relevant to the Agreement. For example, it is unclear why S/P submitted lists of Respondents' employees, attendance sign-in sheets for Respondents' training sessions, insurance policies, labor agreements, or many other documents of questionable relevance. Almost all of the submitted material is not referenced or discussed in the actual comments submitted by S/P. Therefore, much of the submitted material cannot be considered by EPA as an actual comment warranting a response from the Agency. Indeed, many of the submitted but un-referenced materials are already in EPA's files and include information that would seem to undercut the positions S/P takes in their actual comments.

Notwithstanding the minimal relevance of much of the material submitted by S/P, EPA has taken the time to review and consider the materials and the material is part of EPA's records.

At the core of S/P's submittal are six documents, comprising approximately 150 pages of text, produced by S/P to argue and support their legal and technical positions. The first of these six documents is a 34 page, untitled, summary comment document, written in the form of a letter to EPA and signed by Attorney Joseph Nassif. This document lays out the basic premise of S/P's opposition to the Agreement. EPA refers to this summary document herein as the "S/P Comments." The S/P Comments are purportedly supported by a second document, a 30 page legal position paper, written in the form of a legal brief and attached to the S/P Comments as Exhibit C (herein referred to as S/P's "Legal Comments"). The other four documents, which range from 4 to 62 pages, are technical in nature and also purport to support the main S/P Comments. These four technical documents are written in the general form of expert opinions. EPA refers to them herein by the names of their authors - Hoffnagle, Patterson, DePinto and Menzie,

respectively.[14]

While EPA reviewed all of the submitted material, this response to comments only responds to the six core documents and the few other pages of submitted materials that are referenced or specifically relied upon in one of the six core documents. Again, the vast majority of S/P's submittal appears to simply a "dumping" of documents produced in litigation or already possessed by EPA or ADEM. Thus, while the material is included in EPA's site files, EPA is unable to respond to documents that are not discussed in a specific comment.

EPA's response to S/P's comments comprises two main sections. EPA begins with a response to the main arguments raised by the S/P Comments and then follows with a response to S/P's Legal Comments. The several main arguments raised in the S/P Comments can be summarized as follows:

- *That EPA has an improper agenda in Anniston and that the Agreement is the unfair product of collusion between EPA and Respondents.*

- *That S/P's contribution rights under CERCLA preempt EPA's response authority - even for areas of contamination that S/P has stated it has no intention of cleaning up.*

- *That there is no plausible pathway for Monsanto's PCBs to have been released into the environment outside the Monsanto plant property and the downstream floodplain.*

- *That EPA's de minimis finding regarding Respondents' contribution to the PCB facility is illegal and unsupported by the evidence, and therefore the Agreement is unfair.*

- *That Monsanto has no CERCLA liability for lead in Anniston.*

[14]S/P submitted a set of supplemental technical comments on December 19, 2005. The comments were submitted more than two months after the close of the comment period. EPA addresses the comments briefly in the Section 7 Addendum to this response.

B. EPA's Response to S/P's General Comments

1. **S/P Comment**: *That EPA has an improper agenda in Anniston and that the Agreement is the unfair product of collusion between EPA and Respondents.*

Response: EPA's Sole Agenda for Anniston is Comprehensive Cleanup.

When all the rhetoric is boiled away, S/P in essence demand that EPA withdraw from the Agreement so that S/P can continue to sue Respondents. None of S/P's 250,000 pages of submitted material comment on or express concerns with the actual proposed cleanup called for in the Agreement. Rather, S/P accuses the United States and the EPA of improperly colluding or unfairly settling with the Respondents by giving them a "free" settlement at the Anniston PCB Site in the Agreement. See S/P Comments, pg 6. The United States and EPA disagree. There is nothing "free" about the Agreement for Respondents. The Agreement requires significant cleanup of both lead **and** PCB contamination in Anniston; it potentially covers up to 14,000 residential properties and could cost well over $100 million dollars. The United States and EPA, as detailed below, also disagree with S/P's technical and legal positions. Neither the law, nor the technical facts or evidence support S/P's comments and positions. In fact, the Agreement is entirely supported by the technical evidence developed by EPA and is completely in accord with CERCLA law.

Additionally, S/P's allegations of improper collusion between EPA and Respondents are false. See S/P Legal Comments, pg. 29. S/P's repeated attempts in their comments to allege that EPA has any motive other than the prompt cleanup of Anniston are entirely meritless. Id. EPA and Respondents negotiated the Agreement over the course of nearly a year. Negotiations were intense and often contentious. Respondents were ably represented by experienced counsel throughout the process. EPA and the United States took very aggressive positions in the negotiations and the final Agreement reflects that fact. It is a comprehensive, detailed document that EPA believes achieves all of the cleanup that reasonably can be allocated to the Respondents. Respondents under the terms of the Agreement are contributing their fair share towards the costs of both the lead and PCB cleanups.

It is ironic that S/P now accuses EPA of improper collusion with Respondents. Just a few years ago, in 2003, when the United States moved to enter the PCD with S/P, the United States and EPA were falsely accused by tort attorneys of improperly colluding with S/P. These tort attorneys argued that EPA's real motive in entering into the PCD

with S/P was not the cleanup of PCBs but rather to "cut off" the tort lawyers case against S/P. Now the United States and EPA once again stand falsely accused of improperly colluding with parties they are entering into a cleanup agreement with, only this time the accusations come from S/P, the same parties that EPA allegedly colluded with previously. In response to the tort lawyers' allegation of collusion during the judicial entry of the PCD, EPA consistently maintained that it was not a party to the tort lawsuit and that EPA had no interest whatsoever in the resolution of that case. EPA's only interest was to achieve the most expeditious cleanup, based on sound science and at the expense of the polluters who caused the problem. Now, once again, EPA must emphatically point out it is not a party to, and has no interest in, the contribution lawsuit between S/P and the Respondents. To the extent that the Agreement impacts the contribution lawsuit, that impact is incidental to EPA's statutorily mandated objectives of getting polluters to clean up lead and PCBs and settling with *de minimis* parties as soon as possible.[15] In the Agreement, EPA has negotiated a comprehensive cleanup agreement with parties that contributed to the lead and PCB contamination in Anniston. S/P were invited by EPA to join that settlement but instead, in the middle of the negotiations, S/P chose to withdraw from that process.

Part D of S/P's Comments states, in a reference to a criminal prosecution of one of the Respondents, McWane, Inc., that the Agreement "brushes aside the Foundries record of deceptive and criminal practices." See S/P Comments, pg. 29. Exactly how the Agreement "brushes aside"criminal activity by McWane, Inc., is not coherently explained; however, it is clear that S/P is again insinuating that EPA's action in negotiating the Agreement with Respondents is somehow collusive or improper. In that regard, EPA's record in prosecuting illegal activities by McWane, Inc., speaks for itself. The United States has aggressively pursued McWane, Inc., in a criminal matter and has achieved convictions resulting in prison terms and large fines. These matters, far from being evidence of collusion, indicate clearly that EPA shows no favoritism to any party in Anniston.

In negotiating and finalizing the Agreement, EPA is fulfilling its Congressional mandate to seek that polluters conduct cleanups. Indeed, for EPA not to seek additional cleanup of lead and PCBs in Anniston would be a clear neglect of its statutory duties. While EPA takes no side in S/P's contribution case, CERCLA provides that after settling with the EPA, settlors are granted statutory protection from contribution claims for the matters addressed in that settlement. See generally CERCLA Sections 113(f) and 122(g). Exactly what impact the Agreement may have on the S/P's contribution action is a matter

[15]While EPA has no interest in which side prevails in the contribution action, EPA does reserve all of its rights and options with regard to defending its *de minimis* determination, the Agreement, and the PCD.

to be addressed in the contribution case. Both the plaintiffs and defendants in that matter will have a full opportunity to litigate over the impact of the Agreement. That litigation may take years. In the meantime, it is imperative for the health and welfare of the Anniston community that the cleanup work under the Agreement proceed.

2. **S/P Comment**: *That S/P has a preeminent right to pursue its contribution case which takes legal precedence over EPA's mandate to achieve cleanup of releases of hazardous substances - even for areas of contamination that S/P has no intention of cleaning up.*

Response: S/P's Contribution Case Is Not Of Paramount Importance Under CERCLA - S/P Takes Two Fundamentally Contrary Positions

S/P comment that EPA is prohibited from reaching agreement with other responsible parties to cleanup PCBs in residential properties in the Anniston area because such an Agreement may impact S/P's contribution action. However, contrary to S/P's comment, there is no possible reading of CERCLA that allows the conclusion that contribution actions of polluters are of predominant importance under the statute; instead it is clear that the paramount reason Congress wrote the statute is to protect the public health by ensuring cleanup by the polluters who caused the release of hazardous substances. S/P's contribution rights under the PCD and the law do not preempt EPA's settlement authority; in fact, the statute expressly makes contribution rights subordinate to EPA's settlement authority.[16]

Additionally, woven consistently throughout S/P's comments are two contrary positions. On the one hand, S/P argues that PCB pollution from their historic operations contaminated only a very small part of Anniston downstream of their plant, and therefore, S/P have no legal obligation to do any cleanup beyond that limited area. In their comments, S/P threaten to ask the court to limit their cleanup obligations to the work they have already completed in that limited area. S/P also filed a pleading in their contribution lawsuit against Respondents stating unequivocally that it is a "certainty" that S/P will set aside their cleanup obligations under the PCD if the Agreement becomes final. Clearly, S/P has taken the position that they have no intention of performing any additional PCB

[16]EPA's arguments on this point are detailed in Section VI. (Response to S/P's Legal Comments).

cleanup under the PCD.[17]

On the other hand, S/P comments that EPA must withdraw from the Agreement because it infringes on S/P's attempt to sue the Respondents for contribution to the PCB cleanup.[18] S/P's opposition to the Agreement would make sense if they were actually agreeing to perform all of the necessary PCB cleanup under the PCD. But they are not. Instead, S/P argues that they have no CERCLA liability for PCBs except for the very limited area they have already cleaned. In essence then, S/P opposes the Agreement on the grounds it interferes with their right to sue for contribution for PCB contamination S/P is refusing to cleanup.[19] Indeed, once the Agreement is final, S/P claims it is a "certainty" they will set aside their cleanup obligations under the PCD. Therefore, it would seem S/P has little reason to oppose the Agreement since they have no intention of doing any more PCB cleanup under the PCD.

3. **S/P Comment**: *There is only one plausible pathway for Monsanto's PCBs to have been released into the environment; therefore, no Monsanto PCBs are found in Anniston outside the Monsanto plant property and the downstream floodplain.*

Response: S/P Is Wrong That There Is Only One "Plausible" Pathway for Monsanto's PCBs to Enter the Anniston Environment; There Are Multiple Pathways.

As discussed above, the Monsanto Anniston PCB Plant was one of only two places in the entire country where PCBs were manufactured. Both locations are heavily contaminated with PCBs and are being addressed under the federal Superfund program.

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[17]Besides the residential cleanup, the only other work under the PCD is the RIFS study. Following the RI/FS, EPA will select a final remedy for the PCB Site. S/P have made no commitment to perform the final PCB cleanup.

[18]S/P has already cleaned up some yards under the PCD, but those yards are limited in number and are all in the area S/P admits liability for, therefore, S/P's contribution case for those yards would likely have minimal value. Apparently, S/P's real concern is over its contribution case for the yards outside the floodplain - the very yards they now refuse to cleanup under the PCD.

[19] Contemporaneous EPA, S/P, and Court documents make it very clear that the PCD covered residential properties throughout Anniston. For example, after a jury found S/P responsible for PCBs found on plaintiffs' properties, S/P argued that any damages award against them for cleanup costs should be vacated because S/P had just signed the PCD with EPA and had therefore committed to cleaning up all of the plaintiffs' yards. The plaintiffs in that matter numbered approximately 3,500 and had properties throughout the Anniston valley, not just downstream from S/P's PCB manufacturing plant. See Exhibit 12.

Monsanto produced approximately 680 million pounds of PCBs (also known as Aroclors) in Anniston.[20] Their own historic company records indicate that approximately 90 million pounds of PCB wastes were released into the Anniston environment. In light of these basic facts, S/P is incorrect that only one possible pathway exists for PCB releases from Monsanto into the Anniston environment. To the contrary, all of the technical data and evidence, including Monsanto's own documents, indicate that multiple pathways existed for PCBs to enter the environment from the Monsanto plant. In fact, to this day, data shows continuing low level releases of PCBs from the plant by multiple pathways, despite all of the efforts made by S/P over the last 30 years to contain their PCBs.[21]

As part of its consideration of all of the available Anniston data and evidence, EPA has also reviewed hundreds of Monsanto historical documents regarding the Monsanto PCB plant's operations. A prime example of the Monsanto historical documentary evidence reviewed by EPA is dated September 14, 1970, and is titled "Progress Report, Technical Services Department, Anniston, Alabama Plant." See Exhibit 14. The Progress Report indicates that massive quantities of PCB wastes were released into the Anniston environment through various pathways. The Progress Report was prepared by Monsanto to define the magnitude of their liquid and solid waste streams and disposal practices for those waste streams in 1970. The "Summary" section of the Progress Report explains that Monsanto discovered that the Anniston plant generated 33 million pounds of liquid and solid waste per year and indicates that Montars (bottom sludges from PCBs and other polyphenyls) were the largest single component of that waste stream.[22]

The Progress Report, along with similar historic Monsanto documents reviewed by EPA, represents a blueprint for releases from Monsanto's PCB operations.[23] The

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[20]Aroclor is the Monsanto trade name for its various types of PCBs. Monsanto used a number system to differentiate between types of Aroclors. Most PCBs were liquids but a few heavier, more chlorinated PCBs were solids which were processed into flakes and powders.

[21]Monsanto's own expert has admitted under oath that present day levels of PCBs in the air in Anniston are higher than any other urban area. See Exhibit 13.

[22]While the Progress Report focuses on liquid and solid waste streams, it also has indications of sources of air emissions. For example, Section XII., page 10, of the Progress Report indicates a 70,000 lbs. per year loss of scrap solid PCBs, some percentage of which would have been released into the air as flakes and powder. The Progress Report states that for solid Aroclor and biphenyl leaks in the plant, "Roughly 75% of the waste is from the bagging operation. The remaining 25% is from process leaks (i.e., pump losses, and pipe-line leaks, etc.)." Id. Spills and leaks of solid Aroclors (the consistency of a very fine powder) inevitably leads to dusts and mists in the air. See Exhibits 15, 16, and 17, further describing the air emissions from solid Aroclor production and processing, and Exhibit 18 indicating Monsanto concerns that plant employees were breathing in PCBs.

[23]Indeed, in other company documents, Monsanto management expresses exasperation at the lack of environmental controls at the Anniston plant. See Exhibits 19 and 20.

Progress Report indicates that for years Monsanto released millions of pounds of PCBs and PCB contaminated wastes into the Anniston environment through multiple pathways. Just a small sample of the many waste streams analyzed by the Progress Report indicates that staggering amounts of PCB contaminated materials were released at and from the plant For example:

- **528 million lbs. per year** of Scrubber wastes composed of "Aroclor (Liq.1221) Water, HCl (2.5%)" released into sewers;

- **6,000,000 lbs. per year** "sewered" of HCl wastes composed of "HCl, water, Aro.[Aroclor] (30%) (5000ppb)";

- **70,000 lbs. per year** [24] of Aroclor (Solid) composed of "flakes at flaker miscellaneous process leaks";

- **209,000 lbs. per year** of Aroclor Blends sparkler filter cake composed of "clay saturated with Aroclor (25% Aroclor - 75% earth)" disposed of at the dump in fiber and metal drums;

- **80,000 lbs. per year** from the "Aroclor Drumming Area - curb section of warehouse" comprised of "Ground Clay 50% [and] Aroclor 50%"; and

- **23,000 lbs. per year** Aroclor and Blends from "columns" composed of "Bauxite, Aroclors (5% to 7% of dry Bauxite), Ferric Chloride free chlorine," sent to the dumps in "skips".[25]

Yet despite the extensive evidence to the contrary found in their own documents, S/P take the position in their comments that the only "plausible" pathway for PCBs to have ever left the Monsanto plant is through the company's PCB discharges that ran or were spilled into the 11th St. Ditch. This faulty claim is the underlying basis of S/P's entire argument opposing the Agreement and when corrected, the validity of all of their technical arguments and legal opinions fail. Specifically, the arguments and opinions set out in S/P's six core comment documents all rely on this notion that PCBs only left the

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[24]No disposal method is indicated in the Progress Report for this waste stream. However, other documents show that much of this waste was washed down the sewer or lost to the atmosphere. See Exhibits 21 and 17.

[25]With regard to the dumps, the opening sentence in the "Background" section of the Progress Report states, "Waste materials that are presently disposed of by dumping must soon be disposed by a more acceptable means". This is a reference to the fact that under Alabama law open dumping was just beginning to be regulated. See Exhibit 22.

Monsanto plant via the 11th Street Ditch. Further, each one of S/P's four experts' opinions rely extensively on the opinions and presumptions made by the other experts. If any one of those presumptions is false, all of the expert opinions fall. The most glaring false presumption in all of the expert reports is the presumption that the "only plausible" pathway for PCB contamination is the downstream water pathway emanating from the 11th St. Ditch. While that pathway clearly was a major and obvious conduit for PCBs to leave the Monsanto plant and enter the Anniston area environment, it most certainly was not the only one. In fact, it is unclear to EPA how S/P's experts could credibly reach their conclusion that there is only one pathway unless they simply did not review Monsanto's historical documents. EPA, on the other hand, tasked Dr. Allen Medine to evaluate all available information and opine on the fate and transport of PCBs through any and all pathways in the Anniston area. After evaluating all available information, including the opinions of S/P's experts, Dr. Medine has concluded that numerous pathways of PCBs from the Monsanto plant exist and that the majority of PCBs found throughout the Anniston area originated from the Monsanto plant. Dr. Medine's report is attached as Exhibit 23 to this Response to Comments.

a. There is a PCB Air Pathway from S/P's PCB Manufacturing Plant

Monsanto's own documents indicate that S/P released approximately 60,000 pounds of PCBs into the atmosphere from only four of numerous process points at their Anniston PCB manufacturing plant.[26] Monsanto documents also indicate that other possibly even larger emissions occurred from other process points. For example, as stated in the Progress Report discussed above, Monsanto's own estimate of solid Aroclor losses from miscellaneous process leaks totaled up to 300 pounds per day and 70,000 pounds per year. Additionally, although not readily quantified into pounds, large amounts of PCBs entered the atmosphere through volatilization of PCBs that Monsanto released into the environment via other pathways. One significant source was, and may still be, Monsanto's dumps where tens of millions of pounds of PCB wastes were disposed of and exposed to the elements for decades. In fact, Dr. Mitchell Erickson, who was cited as a contributor to the Menzie Opinion, has previously written:

> *Volatilization of PCBs from spills, landfills, road oils, and other sources results in measurable atmospheric emissions. Atmospheric transport is the primary mode of*

[26] S/P have claimed that it takes only a very minor amount of PCBs to cause any particular property to exceed the cleanup threshold of 1ppm. S/P have claimed in court filings that it would take only 3 grams of PCBs to cause a property to exceed the 1ppm cleanup standard. In their comments, S/P now claim that 3 ounces is the relevant amount. Contrary to S/P's position that they released insignificant amounts of PCBs, if any, into the air, using EPA's conservative estimate for S/P's atmospheric releases of 60,000 lbs, S/P released sufficient PCBs into the atmosphere to contaminate more than 9,000,000 properties (at 3 grams) or 320,000 properties (at 3 ounces).

the global distribution of PCB.[27]

As stated by Dr. Erickson, scientific studies have shown PCBs have spread all over the earth through airborne migration. The World Health Organization reported in 1993 that "the virtually universal distribution of PCBs suggests transport in air." See Exhibit 24, pg. 14. This report also describes the presence of PCBs in the breast milk of Eskimos and the blubber of whales and seals in the Arctic. Id. at Section 5. Despite a wealth of scientific evidence that PCBs can migrate great distances through air pathways, S/P takes the position that their PCBs could not have migrated even a few miles.

In their comments, S/P claim that there is "no plausible pathway" for PCBs from S/P's PCB manufacturing plant to reach properties outside of the 100 year FEMA floodplain. EPA finds S/P's argument unpersuasive based on the information EPA has collected and evaluated. Contrary to S/P's argument, EPA believes that the vast majority of PCBs in the Anniston area originated from Monsanto's PCB manufacturing plant, including PCBs found in those properties outside of the floodplain. The evidence EPA reviewed proves that there were multiple sources and pathways of PCB releases to the atmosphere from Monsanto's PCB manufacturing plant. EPA has also determined that the dominant pattern of PCBs in properties outside of the floodplain supports air deposition as a major contributor of PCBs to these areas. EPA further believes that the overwhelming presence of solid Aroclors, represented by the finding of Aroclor 1268 in properties outside of the floodplain, provides a clear indication that PCBs in the Anniston area did, in fact, originate from Monsanto's PCB manufacturing plant. Monsanto's historic documents indicate that the Anniston plant created, processed, and released solid Aroclor 1268, as well as the similar solid Aroclor 1269. In contrast, no credible evidence exists showing that the Respondents used or released any wastes containing these solid Aroclors.[28]

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[27] See Erickson, M.D., "PCB Properties, Uses, Occurrence, and Regulatory History," pp. xi-xxx in: PCBs--Recent Advances in the Environmental Toxicology and Health Effects of PCBs (L.W. Robertson, and L.G. Hansen, Eds.), University Press of Kentucky, Lexington, 2001.

[28] In fact, Aroclor 1268 made up less than 1% of all PCBs produced. See Exhibit 25, pg. 2. It is no coincidence that the city where this rare Aroclor was manufactured is heavily contaminated with Aroclor 1268. See U.S. v. Monsanto Co., 858 F. 2d 160, 169 (4th Cir. 1988) (Absent proof that a generator's waste remained at a facility at the time of release, a showing of chemical similarity between hazardous substances is sufficient.)

i. Monsanto Released Substantial PCBs to the Atmosphere from their PCB Manufacturing Plant, Including their Dumps

In evaluating S/P's fundamental premise that their PCB manufacturing plant released no PCBs into the atmosphere, it is important to recall that Monsanto was the only manufacturer of PCBs in the United States and that Anniston, Alabama is one of only two locations in the United States where Monsanto manufactured PCBs. Based on Monsanto's own records, EPA estimates that Monsanto produced approximately 680 million pounds of PCBs at the Anniston plant between 1929 and 1971 – over 40 years of PCB production. See Exhibit 26, pg. 3. In connection with that production, Monsanto's records also establish that they released substantial amounts of PCBs into the atmosphere.[29] The following excerpts from a some of Monsanto's historic documents provide ample evidence of substantial PCB losses to the atmosphere from numerous sources.

With respect to solid Aroclor 1269 production in Anniston, Monsanto stated in a 1935 document titled "Diphenyl and Chlorinated Diphenyl Derivatives":

> *Another factor complicating operations is the sudden decomposition that occurs at the end of the distillation. The gas evolved contains large amounts of acid forming vapors and also some of the Aroclor 1269 as an extremely finely divided dust which is discolored and decidedly acid. Efforts to collect this dust and rework it have not been successful. Our operations at present are to discharge these decomposition products through an exhauster and into the atmosphere. Such a procedure in a more populous community might create a nuisance. . . . the fineness of particles approach that of fog particles.*

See Exhibit 15, pp. 41, 43 (emphasis added).

In a document dated November 1950 titled "Process for the Manufacture of Diphenyl & Santowax," S/P states:

> *The diphenyl building with good ventilators in the roof, is very high, and*

[29] As PCBs began to come under world-wide scrutiny, a December 30, 1968, memo indicates that even Monsanto management was increasingly concerned with their PCB pollution. The memo states "I believe we should make sure that our plants have minimum air or stream pollution. I believe Anniston is vulnerable and that off-gas HCl and Aroclor should be 100% controlled." See Exhibit 27. (emphasis added)

the open-work steel floors permit a strong updraught of fresh air to flow through the rooms from the ground floor, which in every case is completely open on the east side.

See Exhibit 28, pg. 20. (emphasis added)

Although Monsanto vented much of the PCB vapors to the outside atmosphere, it is clear that high levels persisted in the production area evidencing the ability of PCBs to mobilize in the air at significant levels. In an undated Monsanto document titled "The Determination of Aroclor Concentrations in the Atmosphere at Monsanto Chemical Company's Anniston, Alabama Plant," concerning sampling apparently conducted at the request of DOW Chemical, Monsanto found that "the Aroclor vapor concentration in the air at the sample points is seldom below the 0.5 to 1.0 mg. per cu. meter level, which is the maximum tolerable concentrations (according to Elkins, see References), and often is as high as 3 to 5 mg. per cu. meter. These higher concentrations are extremely irritating to the eyes, nose, and throat." See Exhibit 29, pg. 3.

An October 2, 1969, "Report of Aroclor 'Ad Hoc' Committee" recommended that Monsanto "[d]etermine extent of atmospheric losses from Aroclors from Anniston and WGK Plants and develop plans for control." See Exhibit 30, pg. 3. The minutes of this Monsanto 'Ad Hoc' Committee also reveal that Monsanto had concluded that "there is little object in going to expensive extremes in limiting discharges from the plants. . .," and that "[a]ir pollution reduction has not been considered by the plants to date except as incidental prevention of product contamination during tank car and drum loading operations." See Exhibit 31, pg. 3.

A September 4, 1970, memo entitled "Aroclor Losses to the Atmosphere" shows that 2.6 pounds per day were being lost at the HCl Scrubber Jets alone. The memo further concludes that "[p]oor efficiency at the jets increases the loss of PCB to the atmosphere considerably." See Exhibit 32.

In December 29, 1970, Monsanto measured ambient atmospheric levels for Aroclor 1242 and Aroclor 1254 at various locations on its plant, including the Aroclor Still Room, Tank Car Loading Platform, Warehouse Drumming Area, and the Montar Hood. See Exhibit 33. The results confirmed that PCBs were persisting in the ambient air. Monsanto also reported that the measured levels of PCBs were likely low for at least two reasons: 1) "there has been very little manufacture of Liquid Aroclors during this period. . ." and 2) "Some problems have been encountered in sampling and analysis at Anniston which account to some degree for the low values" reported in the memo. Id.

As a follow-up to the December 29, 1970, memo, Monsanto conducted additional analysis that could be reported in a pounds per day figure, as opposed to just ambient air measurements. In the follow-up memo dated January 18, 1971, Monsanto reported that they were emitting as much as 12.76 lbs per day of Aroclor into the air from only four process points in its operation. See Exhibit 34. While substantial, Monsanto's analysis underestimates total PCB air emissions from the Anniston plant since the measurements of air emissions were taken at only four process points. The inclusion of other known sources, such as "Blow Tank Jets," "Vacuum Jets," and solid Aroclor losses from the flaking operation would have provided a much larger and accurate measure of releases of PCBs to the atmosphere. Id.

Clearly, losses from the solid Aroclor process were an issue for Monsanto. In a December 9, 1970, memorandum Monsanto stated:

> *. . .we have an inquiry from duPont for a million lbs/year of 1268 (or 1272) in an application which they claim to be free of environmental impact. Since we can only make 1268 in Anniston's solid Aroclor equipment, and the profit on this much 1268 would be substantial, this might justify spending PCB pollution control capital at Anniston.*

See Exhibit 35. (emphasis added)

In addition to production, process, and handling losses of Aroclors to the atmosphere from Monsanto's PCB manufacturing plant, it appears that the incineration or partial incineration of PCB containing materials at the plant also contributed to PCB losses to the atmosphere. A March 4, 1969, Monsanto memorandum entitled "Aroclor - Wildlife: Incineration of N.C.R. Paper" discusses PCB releases into the atmosphere from incineration of Aroclors. The March 4, 1969, memo concludes that "Aroclor is easily volatilized when N.C.R. paper is burned. . ., Aroclor undergoes little, if any, decomposition when burned. . .", and "it appears that significant air pollution can occur via burning of N.C.R. paper or other Aroclor containing materials even under more strenuous conditions". See Exhibit 36.

A November 1950 manual entitled "Process for the Manufacture of Diphenyl & Santowax" states "[i]n the early days at Anniston, fires were not infrequent. . . ." See Exhibit 28, pg. 16.

A January 4, 1963, Monsanto memorandum entitled "Disposal of Liquid-Solid Aroclor Trappings" states:

I believe that a specified area should be designated by signs on the dump site where these drums should be disposed. I believe this should be done in view of the fact that we burn trash at the dump and the dump scavengers burn out old containers in reclaiming drums. By designating the area as far away from the incinerator and the scavenging operations, we will minimize the possibility of igniting the liquid-solid trappings.

See Exhibit 37.

Further, a March 31, 1970, Monsanto memo states:

The teepee incinerator located at the dump should be repaired and put into operation. The regular operation of this unit will decrease the volume of material which must be placed into the land-fill. State of Alabama law also states that open burning of wastes be halted by September 12, 1971. This unit should be repaired so that it is operable and operated as per the recommendations of the manufacturer.

See Exhibit 22, pg. 2.

In 1968, Monsanto constructed a new building, known as the flaker plant or MCC Warehouse, which was used to flake, process, package and load solid Aroclors, including Aroclor 1268. See Exhibit 38. On April 9, 1969, Monsanto suffered an "Explosion and Fire" in the biphenyl flaking-packaging area of the MCC Warehouse. See Exhibit 39. The result of Monsanto's investigation of the explosion and fire concluded that it was caused by "the detonation of biphenyl dust. . . ." Id. at pg. 4.

In addition to the incineration of PCB wastes, there are numerous indications of the significant potential for airborne releases from S/P's dumps. S/P's comment that these "landfills" never leaked and were always secure is simply false. It was not until the 1970s that Monsanto began to treat its open dumps as landfills. In a March 31, 1970, memo titled "Recommendations of Task Force on Plant Dump" Monsanto stated ". . .it is imperative that this operation be converted to a landfill type so as to minimize the chances for water pollution. . . ." See Exhibit 22. The memo goes on to state that the "[t]he old drums lying on the banks of the dump should be moved. . . . Sufficient dirt should be hauled in to provide at least 2 ft. of cover over these drums. . . ." Id. The Task Force also recommended that "the waste material in the dump should be covered on a regular schedule. A minimum of once per week is recommended. The periodic covering of wastes. . .will allow drainage of the dump site and eliminate the large lakes which are presently a problem." Id. It was only much later, in 1997, that the PCB dumps were

finally capped under the RCRA program. [30]

Clearly, prior to 1970, little effort was made to control the potential for airborne releases of PCBs from the dumps. Even after 1970, the Task Force only recommended covering material once per week. Due to the insufficient control of PCB wastes in the dumps, a substantial amount of PCBs, by way of dust particles and volatilization, were likely released into the atmosphere from S/P's dumps. This conclusion is consistent with the findings of Dr. Medine, as well as the opinions of Dr. Erickson, noted above, and Dr. Hermanson whose findings are discussed below.

It is evident from Monsanto's historic documents that little effort was made to quantify or control PCB releases to the atmosphere from its PCB manufacturing plant or PCB dumps, or any other pathway for that matter, until the late 1960s when PCBs were first subjected to world-wide scrutiny as a global environmental contaminant. Nevertheless, based on Monsanto's own documents it is clear that substantial releases of PCBs to the atmosphere from Monsanto's PCB manufacturing plant site occurred. EPA has conservatively determined that, at a minimum, 60,000 pounds of PCBs were emitted into the atmosphere. See Exhibit 26, pg. 3. EPA's estimate is conservative because it is only based on process losses to the atmosphere. EPA's estimate does not include losses from other documented releases, including but not limited to, spills and venting of solid Aroclor flakes and powders, volatilization of PCBs from the plant property and dumps, or PCBs released through the incineration of PCB contaminated wastes. The Respondents' comments estimate Monsanto's atmospheric releases of PCBs at between 115,500 pounds and 163,100 pounds. See Respondents' Comments, pg. 7. S/P's position that Monsanto had no releases to the atmosphere is plainly at odds with their own records. Indeed by S/P's own account, 60,000 pounds of PCBs would be enough to contaminate hundreds of thousands of yards at levels above EPA's cleanup criteria. See footnote 26 above.

ii. High Levels of PCBs on Monsanto's Former PCB Manufacturing Plant are Supportive of an Air Pathway

In support of their claim that they had no releases of PCBs to the atmosphere from their Anniston PCB manufacturing plant, S/P asserts that there are little to no PCBs on their plant property today and that the pattern of PCBs being found throughout the

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[30]It is not presently clear that the RCRA cap is sufficient to prevent on-going releases of PCBs. See Footnote 56. Cover material was not applied to disposed materials on a daily basis until the 1980s according to Monsanto's Hazardous Waste Management Facility Closure/Post-Closure Plan dated June 1983, in which Monsanto states "[t]he potential for contaminants to become air borne is controlled through daily application of cover material." See Exhibit 40, pg. 5. Evidently, Monsanto believed that prior to the application of daily cover the potential for airborne contamination existed.

Anniston area is not indicative of air deposition. See generally, Hoffnagle Report.

With respect to the first point that there are little to no PCBs found on the plant property today, even the Hoffnagle Report submitted by S/P begrudgingly admits the absurdity of this claim. Hoffnagle states "Most concentrations on the plant are below the detection limit or in the low ppm range. Some of the samples may have been affected by soil reworking or the placement of fill since the 1970s. . . ." Hoffnagle Report, p. 1. In fact, S/P have demolished most of the old manufacturing structures, paved over, and placed fill throughout the entire plant, including covering and capping their dumps since 1970. See Exhibit 41. S/P admit in their comments that S/P "dredged and cleaned up the 11th Street Ditch and its plant site a long time ago. . . ." S/P Comments, pg. 10. Further, information provided by S/P shows that "The Alabama [PCB] operation was discontinued and the plant dismantled in 1971." See Exhibit 42, pg. 198. EPA does not believe that present day sampling from modified areas on S/P's plant site credibly reflects the true condition of the plant property throughout its PCB manufacturing history. See Exhibit 41. However, despite S/P's efforts over the past 30 years to erase its PCB legacy, there are numerous documents indicating that large concentrations of PCBs historically were found on the Monsanto's PCB manufacturing plant. For example:

- In 1993 Alabama Power identified PCB residues oozing from Monsanto's old West End Landfill. Sampling of the material detected PCBs at nearly 600,000ppm. See Exhibit 43.

- An August 17, 1970, Monsanto memorandum gives an indication of the levels of PCBs likely released into soils that have since been paved over. The memo states that Monsanto's corporate headquarters was:

  . . .disappointed that we are still using considerable quantities of sand to keep the floors in the department partially dry. . . . Our efforts should be directed at preventing Aroclor from getting on the floor. . . . I have concerns regarding the containment of Aroclors from the bulk storage, drumming, tank car and tank truck loading areas. The crushed rock areas should be replaced with concrete pavement, curbing and drainage to the interceptor basin. The amount of Aroclor on the drumming area floor appeared excessive and could overload the small sump which is in the present drainage channel from this area. See Exhibit 20. (emphasis added)

- Additionally, Monsanto's MCC Warehouse, constructed in 1968 and referenced above, although used to process solid Aroclors from only 1968 to 1971, was still contributing to PCB releases to Anniston in 2000 - thirty years later. In 2002, the

building and surrounding area was decontaminated and capped by S/P. See Exhibit 17.

- In 1997, as part of S/P's RCRA Consent Order No. 96-054-CHW with ADEM, S/P sampled properties very near to the MCC Warehouse. Levels of total PCBs were found as high as 2,810 ppm, including levels as high as 990 ppm of highly chlorinated Aroclors indicating the presence of solid Aroclors 1268 and 1269. See Exhibit 44.

- An EPA Multi-media Inspection Report dated June 5, 2001, states that "PCB flakes on the outside [of the MCC Warehouse] were found at the seam of the sidewalls and concrete floor near the stormwater trench on the Northeast side and Northwest side of the building. The facility sources suspect the PCB flakes to have been airborne at time of PCB processing through the vents and stacks and suspect heavier particles of the PCBs to have settled on the roof top and washed off by rain into the gutters over a period of time. . . ." See Exhibit 45, pg. 4.

- A Monsanto memo dated January 29, 1971, stated "it became increasingly obvious that high levels would continue because of the PCB's trapped in the soil and the sewer systems." See Exhibit 46. (emphasis added)

- Sampling of surface soils on S/P's plant as recently as 2005 showed PCB levels in the hundreds of parts per million. See Exhibit 47.

It is indisputable that S/P spent millions of dollars in the late 1990s pursuant to its RCRA permit requirements, on "interim" engineering projects designed to try to prevent the ongoing release of PCBs into the Anniston environment. These actions included stormwater control projects designed to capture the releases of PCBs from contaminated soils on the plant property during rain events. See Exhibit 41. S/P's conclusion that there were minimal PCBs released onto the plant property ignores all of the known facts to the contrary.

iii. Pattern of PCB Contamination Demonstrates an Air Pathway from Former Monsanto PCB Manufacturing Plant

The second part of S/P's argument that there has been no atmospheric dispersion of PCBs from their former PCB manufacturing plant is that the pattern of PCBs being found throughout the Anniston area is not indicative of typical air dispersion patterns. However, S/P's comments describe a type of "air dispersion pathway" that would exist

only in a undeveloped and static environment; not a dynamic, growing urban area situated in a flood-prone valley. First, S/P claims that air dispersion would result in higher levels near the source with decreasing levels as distance from the source increases. S/P claims that such a pattern does not exist in Anniston. Second, S/P further argues that there is a pattern of higher PCB levels at depth than at the surface which is inconsistent with atmospheric deposition. EPA finds S/P's arguments unpersuasive and contrary to the facts.

S/P's comments ignore facts about Anniston that obviously would affect the "typical air dispersion pattern" of PCBs that S/P describes. The Anniston area sits in a valley subject to widespread flooding. As a result, over the past 100 years Anniston area residents have placed fill on their properties. The common practice of placing fill on properties occurred in addition to normal urban area land disturbances from construction, demolition, landscaping, irrigation, and other land altering activities. Further, to the extent these activities occurred on any given property, they generally took place at different times. The Anniston area is simply not a virgin field, and any technical analysis that fails to consider that fact is plainly flawed. EPA agrees with the Respondents' comments that numerous intervening factors necessitate deviating from the simplistic models presented by S/P's experts. See Respondent's Supplemental Comments on AOC, pg. 9. Taking into account the dynamic nature of the Anniston area, EPA believes that the evidence illustrates a clear air dispersion pattern from S/P's PCB manufacturing plant, with generally higher levels near S/P's PCB manufacturing plant and decreasing levels further from S/P's PCB manufacturing plant. Further, the data shows that PCB levels in the Anniston area do not generally increase with depth.

EPA maintains a database containing over 7,000 samples from the Anniston area. An analysis of that data shows a pattern of PCB contamination indicative of air dispersion. First, EPA is finding a higher percentage of properties over the PCB action level of 1 ppm closer to S/P's PCB manufacturing plant with decreasing percentages of properties over the 1 ppm action level farther from the PCB manufacturing plant. Second, sampling results throughout the Anniston area show fairly uniform, widespread low levels of PCBs generally dominated by higher chlorinated Aroclors (indicative of the presence of solid Aroclors). Third, contrary to S/P's claims, PCB levels, with few exceptions, do decrease with depth. Given the urban nature of the Anniston area, as discussed above, the data provides overwhelming evidence of an air dispersion pattern.

(1) PCBs Decrease with Distance from Monsanto's PCB Manufacturing Plant

EPA has analyzed the data collected with respect to the geographic zones set out in

the Agreement. Based on that data, EPA has discovered that in the area identified as Zone D under the Agreement, approximately 67% of the Residential Properties sampled have PCBs greater than the action level of 1 ppm. See Figure 2 below and Appendix 9 to the Agreement. Zone D consists of the area within 500 meters of S/P's PCB manufacturing plant. In the area identified as Zone C under the Agreement, approximately 33% of the Residential Properties sampled have PCBs greater than 1 ppm. Id. Zone C is an area outside of Zone D, but generally closer to S/P's PCB manufacturing plant and includes the area directly downstream of the plant. In the areas identified as Zones A and B, approximately 9% of Residential properties have PCBs greater than 1 ppm. Id. Zones A and B consist of the areas within 500 meters of the foundry facilities (or "Anniston Industrial Operations") under the Agreement and the expansive Anniston valley, respectively. Hence, a clear pattern exists of more PCB contamination closer to S/P's PCB manufacturing plant that decreases as distance from the plant increases. See Exhibit 48.[31] Additional sampling and analysis, discussed below, has been conducted which also confirms a clear air pathway of PCBs from the former Monsanto PCB manufacturing plant.

Dr. Mark H. Hermanson, as part of the Abernathy v. Monsanto litigation, conducted a "Tree Bark Study" of PCBs levels in Anniston and concluded that:

> The results of the tree bark study indicate that the atmosphere around the Monsanto plant and landfills has been impacted by airborne distribution of PCBs. This data supports and reinforces the earlier data from the air monitors. Moreover, this data suggests that this has been occurring over a number of years.

See Exhibit 49, pg. 3.

Dr. Hermanson's tree bark analysis showed that PCB levels in the Anniston area were highest in tree bark near S/P's PCB manufacturing plant and declined as distance from the plant increased. Id. Dr. Hermanson's tree bark study showed PCBs in tree bark more than five miles from the Monsanto plant and conclusively proves that air emissions from the Monsanto plant occurred or are still occurring and that a predicted pattern of air emitted PCBs exists revealing the Monsanto plant as the source.

EPA tasked Dr. Medine, an expert retained by EPA, to review and reassess Dr. Hermanson's analysis and he has concurred with Dr. Hermanson's findings. See Exhibit

[31] Exhibit 48 is a large map and for ease of reproduction has been attached to this Response to Comments in a much smaller form.

23. Dr. Medine also evaluated all data contained in EPA's database and has determined that a statistically significant pattern exists showing decreasing levels of PCBs as distance from S/P's plant increases. Id. Dr. Medine also concluded that the presence of highly chlorinated PCBs (indicative of solid Aroclors such as 1268 and 1269) on foundry properties could be explained by a statistically significant pattern or air deposited PCBs from the Monsanto plant. Id. This latter finding is no surprise, as Monsanto's PCBs did not discriminate between residential and industrial properties.

EPA also tasked its Air Quality Modeling and Transportation Section to analyze the potential for PCB releases to the atmosphere from Monsanto's PCB manufacturing plant to impact surrounding areas. Using meteorological data from S/P's meteorological station, EPA determined that S/P's atmospheric PCB releases had the potential to impact properties outside of the floodplain and had the greatest potential to impact properties within several kilometers of S/P's PCB manufacturing plant, but that properties beyond were also susceptible to impacts from the Monsanto plant. See Exhibit 50.

In addition to EPA's, Dr. Hermanson's and Dr. Medine's analyses, the Respondents provided a statistical analysis of the sampling data maintained by EPA which further supports EPA's finding that the level of PCBs in the Anniston area generally decreases with distance from S/P's PCB manufacturing plant. See Respondents' Supplemental Comments, pg. 9.

In sum, Dr. Hermanson's, Dr. Medine's, the Respondents', and EPA's analysis of the available data and evidence all support a conclusion that presence of PCBs in and around Anniston can be explained by a pathway of air dispersed PCBs from Monsanto's PCB manufacturing plant.

(2) PCBs Levels Do Not Increase with Depth

There have been 194 Residential Properties sampled at the surface and at depth that contain PCBs over the 1 ppm action level. Of those 194 Residential Properties, only seventeen (17), or 9%, showed increased levels of PCBs in the subsurface. Hence, the overwhelming majority of Residential Properties addressed to date do not contain greater PCB levels at depth. S/P however, attempt to rely on sampling at a very small number of Residential Properties to argue that PCBs are greater at depth throughout the Anniston area and therefore, that air deposition from their PCB manufacturing plant has not occurred. S/P's attempt to use an exception to prove a rule is inappropriate. Even if S/P were correct regarding their generalization that PCBs increase with depth in Residential Properties, that supposition does not disprove that air dispersion or other pathways from Monsanto's PCB manufacturing plant contributed to PCBs being found at the surface or

at depth on any particular property. This is the case for several reasons: 1) the varying times at which any particular property received fill or was the subject of landscaping, construction, or similar land disturbing activity; 2) the fact that S/P disposed of PCB contaminated sand which was used as fill; and 3) the fact that dredged material from the creeks and waterways impacted by PCBs from Monsanto was used as fill.

S/P cite to the property at 510 LeGrande in Anniston as proof that PCBs are greater at depth throughout the Anniston area and that no air deposition from S/P's PCB manufacturing plant could have caused PCBs to exist in subsurface soils. See S/P comment letter, pp. 23-24. S/P distort the facts about this property, and therefore, their conclusions about the sources of PCBs to 510 LeGrande are incorrect. S/P claim that the property at 510 LeGrande is "hydraulically [sic] upgradient (upstream) of the Anniston Plant and its landfills." Id. S/P ignores the fact that surface water runoff from their PCB manufacturing plant and West End Landfill ran onto this property. A spot elevation map from 2004 provided by S/P clearly shows that the gradient from S/P's West Landfill, at 802.9 feet, steadily declines to approximately 764.5 feet in the area around 510 LeGrande, which is less than 1,500 feet from the West Landfill. See Exhibit 51.

Further, S/P's own comments state that the "property owner [at 510 LeGrande] confirmed that the property had been filled during the early 1970s with foundry waste" and that prior to being filled was "low lying and very swampy in nature." See S/P Comments, pg. 24 and Exhibit T to S/P's Comments. Hence, not only was the 510 LeGrande property at an even lower elevation prior to being filled in the 1970s, but the property received PCB contaminated runoff from S/P's PCB manufacturing plant, including the West End Landfill, for as many as 40 years before it was ever filled. It is absolutely no surprise then, that PCBs were found at depth and at higher levels than the surface.

S/P attempt to support their claim that PCBs at 510 LeGrande could not have come from their plant by stating that "[s]ample results from properties between 510 LeGrande and the Anniston Plant did not have detectable PCBs." See S/P comment letter, pg. 24. S/P's statement is absolutely false. In fact, most of the residential properties between 510 LeGrande and S/P's West End Landfill are also contaminated with PCBs. Many are contaminated with PCBs between 5 ppm and 10 ppm. See Exhibit 48.

iv. The Presence of Solid Aroclors is Attributable to S/P

Monsanto manufactured PCBs under the trade name Aroclor from 1929 until 1971 at its Anniston PCB manufacturing plant. Monsanto assigned Aroclors different numbers based on whether they were crude PCBs or distilled PCB products and also based on the

degree of chlorination of each Aroclor. See Exhibit 15, pg. 79. If the numbers assigned to the Aroclor had an "11" as the first two digits the number denotes a crude diphenyl/biphenyl, while the number "12" as the first two digits denotes a distilled diphenyl/biphenyl product. The third and fourth digits in the Aroclor name denote the general degree of chlorination for that particular Aroclor. Hence, Aroclor 1254 represents a distilled PCB that contains roughly 54% chlorine. Id. At greater than 65% chlorination the Aroclor product becomes a crystalline solid. Id. Documentation shows that Monsanto manufactured several solid types of PCBs in Anniston, including Aroclor 1268, 1269, and potentially some other Aroclors numbered 1270 and 1272. Aroclor 1268 has a chemical makeup which is dominated by two PCB molecules, octachlordiphenyl (8 chlorines) at 33% and nonachlorodiphenyl (9 chlorines) at 48%, as well as significant amounts of decachlorodiphenyl (10 chlorines). See Exhibit 52. Aroclor 1269 is similar to 1268. See Exhibit 53. In contrast, the liquid Aroclors, such as 1242, 1248, 1254, and 1260 are dominated by lower chlorinated Aroclors. In fact, Aroclors 1242, 1248, and 1254 contain almost no octachlorodiphenyl or nonachlorodiphenyl. Aroclor 1260 contains only 4% octachlorodiphenyl and 1% nonachlorodiphenyl. See Exhibit 52.

In addition to the production of liquid Aroclors, Monsanto also manufactured solid Aroclors at its Anniston PCB manufacturing plant, including Aroclors 1268 and 1269. While EPA has identified some production data for Aroclors 1268 and 1269, production at Anniston of Aroclors in the 1270s is more speculative. See Exhibit 35. At least for Monsanto's later production years, Aroclor 1268 appears to have only been manufactured at the Anniston PCB manufacturing plant. Id. Production figures at Anniston for Aroclor 1268 were provided by S/P for only 5 years between 1953 and 1970, totaling 1,180,798 pounds. See Exhibit 54. However, Exhibit 42 shows that 2,882,000 pounds of Aroclor 1268 was manufactured by Monsanto between 1957 and 1970. With respect to Aroclor 1269, the only definitive information shows that Aroclor 1269 was manufactured early in the operating history of Monsanto's PCB manufacturing plant. See Exhibit 15. While actual production figures were not provided, monthly production capacity for Aroclor 1169 (un-distilled Aroclor 1269) was listed at 156,000 pounds. Id. at 27. Exhibit 15 also provides a historic monthly production capacity for Aroclor 1168 (un-distilled Aroclor 1268) of 152,000 pounds. Id. While exact total production numbers for Aroclors 1268 and 1269 are unknown, it is clear that Monsanto did manufacture both of these solid Aroclors at their Anniston PCB manufacturing plant. Aroclor 1268 is a "white to off-white powder." See Exhibit 16. All indications are that Aroclor 1269 has very similar physical characteristics. See Exhibit 15. In addition to the manufacture of Aroclor 1268 and 1269 products, Monsanto's PCB manufacturing wastes, including still bottoms/Montars, and other PCB contaminated waste, also contained the heavier, higher chlorinated PCB molecules. See Exhibit 26.

EPA's database shows that 3,673 individual samples taken from the Anniston area have detectable levels of PCBs. The presence of solid Aroclors, denoted by the laboratory identification of Aroclor 1268, is found in 2,260 or 62% of those samples. It is undisputed that these heavier chlorinated PCBs dominate the sampling results. See S/P Comments, pg. 14; also see Exhibit 55. The Respondents also submitted comments with consistent findings. See generally Respondents' Comments.

In sum, Monsanto's own documentation, only a portion of which is cited above, provides clear evidence that these heavier chlorinated PCBs were released into the atmosphere from Monsanto's PCB manufacturing plant. The evidence of Monsanto's direct discharge and venting of Aroclor 1268 and 1269 dust and vapors, as well as the release of heavier chlorinated PCBs through the incineration of PCB containing wastes, confirms that Monsanto released the very types of unique PCBs that EPA is finding in the soils in residential properties throughout the Anniston area.

v. The Respondents Were Not Likely Sources of Solid Aroclors

The literature and evidence regarding PCB usage by Respondents shows that the primary, if not sole, source of PCBs on Respondents' plants would be in the form of liquid Aroclors, in particular Aroclors 1221, 1242, 1254, and 1260. See Exhibit 42, Table 1.1-4. The information contained in that table was provided by Monsanto. Further, S/P does not contest the point that the Respondents' primary use of PCBs would have been liquids, and, in fact, stated in their comments that "[p]roducts containing PCBs that were used by the Foundries were mostly liquids and oils." S/P Comments, pg. 21.

As previously discussed, solid Aroclors 1268 and 1269 are dominated by the higher chlorinated PCB congeners unlike the liquid Aroclors, such as 1221, 1242, 1254, and 1260, which are dominated by lower chlorinated Aroclors. EPA finds it highly improbable that the dominance of highly chlorinated solid PCBs being found throughout Residential Properties in the Anniston area can be explained by S/P's claim that the Respondents released large quantities of liquid PCBs which contain almost entirely lower chlorinated PCBs.[32]

S/P also claim that the Respondents used solid PCBs as "investment casting waxes" or "binders" for their foundry molds. EPA has not found this to be the case. While EPA finds the evidence of Monsanto's contribution of PCBs to residential

[32] Recent sampling data from Union Foundry's Anniston plant property provided to EPA by S/P indicates the finding of only the liquid, lower chlorinated PCBs. See S/P Supplemental Comments, Exhibit II.

properties throughout the Anniston area overwhelming, EPA also undertook an investigation into potential uses by the Respondents of solid Aroclors, particularly Aroclor 1268 or 1269, as investment casting waxes or binders. During its investigation, EPA reviewed several historic Monsanto sales publications regarding Aroclor products and their uses. However, there was no indication in any of those documents that the Respondents' operations were likely to have used solid Aroclors 1268 or 1269. Relevant portions of the documents, related to investment casting waxes and binders, are described below.

From "Chemical Specialties Data Report. . . Unique Property - Improving Additives for wax formulations, for investment casting waxes, for binding matrices for powdered glass and metals", November 1963, attached as Exhibit 56:

How Aroclor Additives Function in Wax, Binder, and Sealant Formulations

Aroclor - containing waxes are widely used in making dental castings, in the precision casting of aircraft parts, and for casting costume jewelry. Aroclor 1254, 4465, and 5460 are the ones most frequently used. . . .

Use of Aroclor in Investment Casting Wax

The process is especially useful where castings are made of high melting alloys and when the castings require close tolerance, smooth finish and possess intricate shape. . . . Investment casting waxes formulated with Aroclor compounds are widely used in making precision metal parts, dental castings, aircraft parts and custom jewelry. Aroclor compounds 1254, 1262, 4465, and 5460 are most commonly used. . . .

It is evident from Monsanto's own product information that solid Aroclor 1268 was not even identified as a component of investment casting waxes or binders. Further, it is clear that the primary uses of PCBs as investment casting waxes and binders were for precision casting, like jewelry and aircraft parts, not large soil pipes.[33]

Monsanto's sales publications did make note of several uses for Aroclor 1268. However, the sales publications do not implicate the Respondents as sources of Aroclor

[33]In their Second Supplemental Comments, S/P claimed to have found evidence of the use of PCB containing "investment casting wax" by Respondents. However, S/P's claim is misleading because the company they rely on, Southern Tool, is neither a Respondent nor a foundry similar to the Respondents. Southern Tool makes precision castings unlike Respondents and generates no foundry sand in its process.

1268 which is being found throughout the Anniston area. Relevant portions of Monsanto's publications follow.

From "Plasticizer Patter," February 1961, Exhibit 57:

> *Jim Compton reports that a p-tert-amyl phenolic type marine varnish containing 40 parts of Aroclor 1268 showed up very well. . . in Florida. Expected use is a varnish for cedar or redwood.*
>
> *Curt Singleton passed along one of Bill Grosse's tip items. The tip of using 40 PHR of Aroclor 1268 was successful in a problem they have had wherein a prospect wanted a platisol for dipping gloves but wanted a velvet feel to the coating.*
>
> *Bill Maddox reports that Aroclor 1268 is, apparently, doing quite a job thus far — used as a flame retardant in their silicone rubbers.*
>
> *A customer of Lee Johnson is using regularly a combination of Aroclor 1254 and Aroclor 1268 in asphalt as a flame retardant. The combination of Aroclor and asphalt is eventually coated onto paper.*
>
> *Ray Greene reports a metals laboratory has a rather unique use of Aroclor 1268. It is melted and then used to fill the pores of nickel sponge. The sponge can then be machined without destroying the cell structure.*

From "Chemical Specialties Data Report. . . Unique Property - Improving Additives for wax formulations, for investment casting waxes, for binding matrices for powdered glass and metals", November 1963, Exhibit 56:

> *Use of Aroclor Compounds in Wax Polishes*
>
> *Blends of inexpensive waxes in Aroclor have been used successfully to replace a portion of expensive carnauba wax. . . .The following wax-Aroclor-Carnauba combinations compare properties and characteristics with those of 100% carnauba wax. . . [see table on Page 5 showing the prevalent use of Aroclor 1268 for this purpose]*

From "The Aroclor Compounds", May 1962, Exhibit 58:

> *Impregnating Compounds*

Because they possess high purity and excellent electrical resistance, Aroclor 1254, 5460, and 1268 make excellent dielectric sealants: to close the pores of carbon resistors, and to seal electrical bushings and terminals.

Rubber - Natural and Synthetic

Aroclors 2565, 4465, 5460, and 1268, when incorporated in neoprene rubber in amounts as high as 40 parts per 100 parts of rubber make compositions that are extremely flame retardant.

In addition to Monsanto's Aroclor sales materials, Exhibit 42, an EPA report titled "PCBs in the United States Industrial Use and Environmental Distribution," dated February 25, 1976, contains a Table 1.1-4 titled "End-Uses of PCTs and PCBs by Type." According to the report, PCB production and use information was provided by S/P. Table 1.1-4 shows that Aroclor 1268 uses were limited to rubbers, synthetic resins, and wax extenders. As described in Monsanto's sales materials, these end-uses involved neoprene rubber, marine polishes, machining nickel sponges for laboratory use, and other uses unlikely related to the Respondents' operations. Any potential use of these products in the Respondents' operations is speculative at best. In addition, Table 1.1-4 shows that Aroclors 1221, 1232, 1242, 1248, and 1254 were also used in rubbers. Table 1.1-4 also shows that Aroclors 1248, 1254, 1260, 1262, and polychlorinated terphenyls (PCTs) were used as synthetic resins. Further, Aroclors 1242, 1254, and PCTs are shown by Table 1.1-4 to have been used as wax extenders. Hence, even if the Respondents' used some products in their operations that contained rubbers, resins, or waxes that had PCBs in them, it is not a given that Aroclor 1268 was present in those products.

vi. Foundry Sand is Not a Marker for PCBs

S/P claim in their comments that foundry sand provides the "only plausible source" of PCBs to "areas upstream from the Anniston Plant in Snow Creek, or outside of the floodplain in Anniston." S/P Comments, pg. 4. S/P claim that "[t]he evidence is unmistakable – all one has to do is dig to find foundry waste all over Anniston." Id. at pg. 3. EPA agrees that because the Anniston area sits in a flood-prone valley many residents have placed fill in parts of their properties at various times over the past 100 years. As spent foundry sands were abundantly available, that is primarily what Anniston area residents used as fill. These points are undisputed. However, S/P make a flawed leap by assuming that the mere presence of foundry sand provides a sufficient basis to conclude that foundry sand is the source of all PCBs in the Anniston area outside of the floodplain.

Evidently, in an effort to show that foundry sand is the source of PCBs in all

residential properties outside of the floodplain, S/P provided an analysis of foundry "particles" at three residential properties. See Menzie, pg. 34. Menzie's analysis claims to show that PCBs were found adsorbed to foundry waste particles which allegedly proves that the foundries were the source of the PCBs attached to such particles. Id. However, Menzie's analysis is flawed because he made no attempt to describe whether non-foundry particles in the three properties also contained PCBs or whether any other pathways of PCB transport from Monsanto, such as runoff, flooding, dredged material placement, or air deposition could have deposited the PCBs at these three properties. Hence, Menzie's analysis is incomplete and S/P's reliance on it is misplaced. Further, even if Menzie was correct about these three properties, which he is not, statistically, the use of three properties to prove that all properties outside of the floodplain contain PCBs from only the foundries is simply inappropriate. See Exhibit 23.

The first of the three properties was not identified by S/P or Menzie. The only description given for the property was "[d]istribution of PCBs among particles from an Anniston yard." See Menzie, pg. 35, Figure 20. In any event, the analyzed particles from this unidentified property showed that the property contained PCBs made up almost entirely of octo, nona, and decacholordiphenyl. Id. As discussed above, these are the PCBs congeners present in solid Aroclors, not the liquid Aroclors used by the Respondents. If anything, this analysis identifies S/P as the source of the PCBs found in this property.

Similar problems with S/P's and Menzie's conclusions exist with the other two properties where particle analysis was conducted. Although Menzie identifies these two properties, the analysis shows only that foundry-like particles in these properties contain PCBs. Id. There is no information regarding whether non-foundry particles at these properties also contain PCBs, nor is there any analysis of other potential pathways for these PCBs to have become located at these properties (e.g. air deposition, flooding, or placement of dredged material). In fact, the location of both of the properties relied on by S/P and Menzie are in areas likely to have received PCBs from Monsanto's plant through air releases, stormwater runoff, or both.

The property identified by Menzie as "2561-3B" is located at 710 Zinn Parkway. This property is situated less than 3,000 feet due east of S/P's plant; clearly in an area likely impacted by air releases from Monsanto's PCB plant and dumps. Further, during the construction of Highway 202, substantial movement of soils in and around S/P's South Landfill occurred, including the construction of a retention basin to capture runoff of PCBs and other contaminants from S/P's dump. That retention basin lies only several hundred feet from the property at 710 Zinn Parkway and sits directly between the South Landfill and the neighborhood containing 710 Zinn Parkway. See Exhibit 51. Given this

property's close proximity to the South Landfill and Highway 202, it is possible that this property received runoff historically or during the Highway 202 construction project which involved the relocation of portions of the South Landfill. It is also possible that the property at 710 Zinn Parkway received fill from the Highway 202 construction project.

The property identified by Menzie as "3498-3B" is located at 2425 Griffis Street. This property is located approximately 500 feet due west of Monsanto's West End landfill. Similar to the property at 510 LeGrande, discussed above, this property is directly downhill from the Monsanto plant and the West End landfill and received uncontrolled PCB contaminated runoff from them.

Menzie's analysis proves only that there were PCBs at three properties where there were also particles from foundries present. Menzie's particle level analysis provides no evidence that Monsanto was not the source of the PCBs found at the three properties. In fact, given the location of the three properties and type of PCBs found at them, it is highly likely that Monsanto was the source.

S/P's theory that the Respondents are responsible for all PCB contamination in areas outside of the floodplain is based on their claim that "any type of liquid product used in foundry operations was spilled regularly, washed into nearby creeks and ditches, or cleaned up with foundry sand and thrown into foundry waste piles that were made available to residents of Anniston." See S/P Comments, pg. 21. While EPA agrees that a small number of Residential Properties in the Anniston area probably contain PCBs associated with foundry sand from Respondents' operations, overall EPA finds S/P's arguments on this point unpersuasive for several reasons.

First, even if a Residential Property does contain foundry sand with PCBs that originated from one of the Respondents' operations, that does not disprove the clear existence of a major contribution of PCBs from S/P's air emissions or other pathways. Hence, S/P cannot avoid liability under CERCLA for PCBs merely by showing that a Respondent's PCBs may also be commingled with their own PCBs at a property. In other words, S/P's arguments that Respondents may have also contaminated some yards does nothing to change their own liability under CERCLA.

Second, S/P claim in their comments that 77% of the Residential Properties with PCBs that S/P has cleaned up had identifiable "foundry waste" on the property. Id. at 20. Assuming S/P's characterization to be correct.[34] S/P fails to explain how the other 23%

[34]EPA takes issue with both the methodology and the conclusions S/P's utilized to reach this 77% figure. However, the details of EPA's concerns are beyond the scope of this Response.

of the Residential Properties, many of which are outside of the floodplain, became contaminated with PCBs if there was "no plausible pathway" for air or other emissions from Monsanto's PCB manufacturing plant. The only rational explanation is that PCBs were distributed all over Anniston without regard to the presence of foundry sand.

Third, even with respect to the 77% percent of Residential Properties that S/P claims had identifiable foundry sand, S/P provided no evidence that the sample which initially indicated that a particular property needed cleanup was actually taken from foundry sand. All initial sampling at the Anniston Lead and Anniston PCB facilities is conducted by combining 5 distinct aliquots (or sample points) from the top three inches of soil.[35] S/P makes no link between the foundry sand they claim to have found in any yard and the samples taken from that yard. There is simply no evidence that all (or any, for that matter) of the PCBs found in a particular sample came from foundry sand.

Fourth, while it is undisputed that the use of fill was widespread in Anniston, with limited exception, most residents in the Anniston area used foundry sand to fill in low spots in their yards or as soil supplements in their gardens. See generally S/P Resident Statements. It is rare that an entire yard, or even a large portion of a yard, is comprised of fill. Further, EPA sampling and oversight personnel have confirmed that the presence of foundry sand has rarely been identified in the 0-3 inch surface soil samples collected and that if foundry sand was observed, it was most often found in the subsurface soils. See Exhibit 59. In sum, there is no necessary correlation between the fact that a yard has some part of it filled in with foundry sand and the fact that a 5 point composite sample taken from the top three inches of soil in the yard indicates PCBs. In many yards only small parts had any foundry fill and the sampling may not have even come from this area. Thus, S/P's use of this argument is fundamentally flawed and at best represents pure conjecture - not hard evidence.

Finally, S/P argue in their comments that the Respondents' foundry sands became contaminated with PCBs by soaking up PCB liquid spills with the foundry sands. Id. at 21. According to S/P's own argument, some of Respondents' foundry sands would have become saturated with nearly pure PCBs (hundreds of thousands of parts per million). Even assuming some dilution occurred by the time any particular foundry sands were placed in a residents' yard, EPA would expect to see much higher levels of PCBs in those yards than what the data indicates is being found throughout the Anniston area. S/P states in their comments that "the normal levels of PCBs in properties in Anniston [are] 1ppm to 10 ppm." Id. at 11. EPA agrees. These "normal levels" are too low and widespread to

[35] If PCBs above 1ppm are detected in the surficial composite soil sample, additional depth samples are then taken to confirm the necessary depth for removal of contaminated soils.

be attributable to the random and sporadic mopping up of PCBs at Respondents' operations. See Exhibit 23. Moreover, as discussed above, if S/P were correct, EPA would not expect the PCBs being found to be dominated by the presence of solid Aroclors, such as Aroclor 1268. If S/P were correct, the data would show most samples with little or no PCBs and occasional samples in yards with very high levels of liquid types of PCBs. That is simply not the case. Rather, there is widespread, fairly uniform, low levels of solid and liquid PCB contamination throughout the Anniston area.

EPA has no doubt that a minimal number of residential properties contain some PCBs from Respondents' operations. However, given the overwhelming weight of evidence of air emissions from Monsanto's PCB manufacturing plant, EPA is convinced that Monsanto contributed the bulk of PCBs to the entire Anniston PCB Site, including residential properties outside of the floodplain.

b. Monsanto Released PCBs through Multiple Water Pathways, including the 11th Street Ditch and its Downstream Floodplain

S/P's comments, particularly the report by Joseph DePinto, take the position that the only possible water pathway for PCBs to have entered the environment from Monsanto's PCB manufacturing plant was via the 11th Street Ditch to Snow Creek. See Exhibit DD to S/P Comments. The DePinto report begins with the disclaimer that, while the author's opinions were based on considerable analysis, "there has not been enough time given to complete some ongoing analyses to further support these conclusions and to develop new opinions." Id. This statement is not surprising because a true and complete understanding of the historic flow of water throughout the Anniston valley would take considerable study and ultimately may prove impossible because of the countless man-made modifications to the hydrologic system. Anniston and the surrounding towns are a dynamic changing urban area, all of which is located in a flood-prone valley in a part of the country that receives significant levels of rainfall. The very fact that so many yards and other properties in the Anniston valley contain fill is some proof of the extensive historic flooding in the area. Even attempting to categorize the different possible historic run-off pathways from Monsanto's PCB manufacturing plant alone would be a significant and perhaps impossible undertaking. Clearly, a thorough and comprehensive study is not the type of task that DePinto, by his own admission, undertook.

EPA concedes that a complete understanding of the entire manner in which water moved throughout the Anniston area may be impossible given the many historic alterations made to the Anniston area, as well as changes on and around Monsanto's PCB manufacturing plant. Nevertheless, the existing evidence plainly shows that Monsanto's PCB manufacturing plant and dumps released PCBs into the Anniston area via water

pathways that are broader in nature than the limited 11th Street Ditch scenario posited by DePinto. While EPA agrees that Monsanto's PCB manufacturing process discharged an enormous amount of PCBs directly to the 11th Street Ditch, there are multiple other water pathways for PCB contamination that S/P discount or ignore in their comments. These other pathways include storm water runoff, sewer discharges, and a broader flooding impact than S/P otherwise recognizes. Along with Monsanto's PCB air emissions, all of these pathways had the potential to impact the 9th Street Ditch area.

i. PCB Runoff from Monsanto's Manufacturing Plant and the PCB Dumps

Storm water runoff washing over PCB waste and PCB contaminated soils would have carried PCBs in all downhill directions from Monsanto's plant site. Although all storm water would eventually make its way towards Snow Creek, the pathways for reaching Snow Creek are not limited to S/P's direct discharge to the 11th Street Ditch. A Monsanto memo dated January 25, 1967, titled "Status of Anniston Sewer Study," states:

> *Item III. Future Dumping Needs*
>
> *A problem exists because storm water runoff is gradually washing residue from the dump toward Snow Creek. A field survey by the writer indicated significant quantities of material are involved and will eventually reach Snow Creek, if present practice is continued. Our study should involve alternate dump sites as well as possible correct usage of the existing dump.* See Exhibit 60, pg. 3.

In addition to the PCB contaminated storm water generated by the dumps, this document shows that there was a significant quantity of actual materials from the dump being washed towards Snow Creek.

In a March 31, 1970, memo titled "Recommendations of Task Force on Plant Dump" Monsanto stated:

> *A serious problem exists at the present time with the Monsanto dump. The two main areas of concern are: (1) water leakage from the P.C.B. dump, and (2) lack of security throughout the dump area. . . .*
>
> *September 12, 1971, all open dumps in the State of Alabama will be converted to land-fill operations. This law applies to municipalities, but it also applies to any private dump operation which might pose a water*

pollution problem or health hazard. In light of the attention P.C.B. has received, it is highly probable that the Monsanto (P.C.B.) Dump area could be classified as a serious water pollution source. For this reason it is imperative that this operation be converted to a landfill type so as to minimize the chances for water pollution. . . .

1. Eliminate P.C.B. Drainage from Present Dump Site

The old drums lying on the banks of the dump should be moved. . . . Sufficient dirt should be hauled in to provide at least 2 ft. of cover over these drums. . . . The periodic covering of wastes. . . will allow drainage of the dump site and eliminate the large lakes which are presently a problem. See Exhibit 22.

An October 29, 1970, memo entitled "New Sump below Plant Dump" shows that even after Monsanto began taking corrective steps at its dump, runoff from the dump contained as much a 64 ppm PCBs. See Exhibit 61. This sampling event only tested for one type of Aroclor (1242) out of the many made by Monsanto (it is unclear why Monsanto only sampled for Aroclor 1242). The memo further states that two of the three samples taken contained "visible Aroclor." Id. Given Monsanto's statement that visible Aroclor was present in the sample, it is quite likely the PCB levels were much greater than the reported values.

A simple review of topographical and historical aerial maps shows that Monsanto's plant and dumps sat on the side of an elevated area which directs surface water "downhill" through a variety of paths, not simply to Monsanto's direct discharge point at the 11th Street Ditch. See Exhibit 62. Not surprisingly, many of the residential properties in the area due west and downhill from Monsanto's West Landfill have been found to be contaminated with PCBs. See Exhibit 48. This area contains the property at 510 LeGrande relied on by S/P as proof that the Respondents are the only source of PCBs outside of the 11th Street Ditch and its downstream floodplain. See S/P Comments, pg. 23. That property, was a "low-lying swampy area" that received impacted runoff from Monsanto's PCB dump. Further, once PCB contaminated storm water runoff left Monsanto's plant property it is extremely difficult to determine what its exact path to Snow Creek would have been due to the numerous drainage ditches found throughout the Anniston area and due to the vast number of man-made changes throughout the area over the past 70 years.

Despite S/P's claim of impossibility, the evidence strongly suggests that storm water runoff from Monsanto's PCB manufacturing plant and dumps impacted the 9th

Street Ditch area. The Spot Elevation Map submitted by S/P plainly shows that Monsanto's PCB manufacturing plant, 802.9 feet at its highest point (South Landfill not measured), is uphill from the 9th Street Ditch area which sits at approximately 731.5 feet at its originating point. See Exhibit 51. In fact, all measured elevation points from Monsanto's PCB Manufacturing Plant decline as they approach the 9th Street Ditch's origin. Id. The only impeding feature is the railroad berm running east-west on the north side of Monsanto's plant site. However, the historic presence of culverts in the railroad berm make it likely that PCB contaminated runoff from Monsanto's plant site found its way onto properties on the north side of the railroad, particularly during periods of heavy rainfall and flooding. Once in these areas, as noted above, the topography and ditches and swales could have directed runoff downhill to the 9th Street Ditch drainage basin.

ii. Sewer Pathway from Monsanto's PCB Manufacturing Plant

Another pathway by which Monsanto's releases of PCBs impacted the 9th Street Ditch and other areas S/P claims to be outside the floodplain or "upstream" or "uphill" from the Monsanto PCB manufacturing plant is through the sewer system. Monsanto's documents evidence such releases which likely impacted both the 9th Street Ditch and other areas in proximity to the Anniston sewer system utilized by Monsanto.

As discussed above, the Monsanto "Progress Report" dated September 14, 1970, contains numerous references to Monsanto's practice of sewering massive quantities of PCB contaminated water. These quantities total hundreds of millions of pounds of PCB contaminated wastewater per year. See Section V.B.3. above and Exhibit 14.

Additionally, other Monsanto documents also indicate the release of pure PCB wastes into the sewers. A September 4, 1970, Monsanto memo regarding "Aroclor Losses to the Atmosphere at the HCl Scrubber Jet" states that "11.8#/day [pounds per day] of PCB is sewered. . . ." See Exhibit 32.

A July 21, 1970, Monsanto "Progress Report" regarding effluent "Aroclor Losses at the Anniston Plant" states:

> *Aroclor losses from the Anniston Plant for the period April 15 through June 30, 1970, averaged ≈ 16 pounds/day. This is a considerable improvement over the losses of > 250 pounds/day for a comparable period during 1969. This reduction has been primarily achieved by an education program and*

resulting changed operating habits. . . .[36]

Warehouse Sewer

The major losses from this sewer are due to spills while drumming or flaking. These spills are then swept to the sewer during floor clean-up. Presently clean-up is accomplished by use of Du-Bois steam cleaning which considerably raised the solubility of Aroclor in water.

Miscellaneous Samples

These results indicate that significant Aroclor is being lost even when the plant is down or that these are deposits of Aroclor in the various sewers.

See Exhibit 21.

Another Monsanto memo dated January 29, 1971, titled "PCB in Plant Effluent," states that "[d]uring the year as the plants gained tighter control of known sources of PCB pollution, it became increasingly obvious that high levels [of losses] would continue because of the PCB's trapped in the soil and in the sewer systems. See Exhibit 46.

In August 1970, Monsanto stated that ". . . gross introductions of Aroclor into the sewer systems are being stopped with the Aroclor department sump, new operating and housekeeping procedures, and cleanout of potential collection points in the sewer system." See Exhibit 63. The same memo identified six additional needed projects, including one to "[p]rovide a collection system for carbon tower spent carbon to prevent spills to sewer." Id.

A December 7, 1970, memo titled "PCB Environmental Problem November Status Report" states with respect to the "Anniston Plant", "PCB Levels in Sewer" that "Aroclor losses during November averaged 25#/day [pounds per day]. . . ." See Exhibit 64.

A March 6, 1970, memo titled "Aroclor Environmental Program" states that the "Anniston plant plans to install a sump in their sewer system to trap Aroclors." See Exhibit 65. Another document regarding PCB cleanup in Anniston plant effluent dated, May 12, 1969, contains a section titled "Work to Reduce Sewering." See Exhibit 66, pg. 4. Still another Monsanto document of the same date of May 12, 1969, states "[t]he

[36]According to the document, the 16 pounds per day figure underrepresents actual losses because certain periods of high PCB losses were specifically left out of the calculation. See Exhibit 21, Part D, pg. 2.

Anniston Plant is proceeding with projects to reduce the Aroclor in recovered HCl – some of which is sewered." See Exhibit 67, pg. 3.

EPA tasked its Water Programs Enforcement Branch, specifically Mr. John Harkins, EPA Wastewater Collection and Treatment Systems Regional Expert, to evaluate the potential for S/P's sewered PCBs to have impacted the 9th Street Ditch and other Anniston areas. Mr. Harkins determined that the sewer lines in the 9th Street Ditch area were constructed of vitrified clay pipe and brick manholes that predated the Anniston Water and Sewer Board's takeover of the sewer system in 1962. See Exhibit 68, pg. 3. He opined that these clay pipes were typically constructed in two to three foot sections and are known to have problems with deterioration and leaking joints. Id. The sewer system is a combined stormwater/sanitary sewer system, meaning that during wet weather events the sewers carried both wastewater and stormwater. These types of older combined systems are often subject to overflow conditions.

Mr. Harkins found that approximately "1500 feet of sewer line and seven manholes lie in the 9th Street Ditch drainage of which about 1000 feet of sewer lies adjacent to (i.e. less than 100 feet from) and follows the 9th Street Ditch, including six manholes." Id. Mr. Harkins concluded that "given the location of the sewer line along the 9th Street Ditch and the materials used in its construction, sewage overflows may have occurred during the period this sewer was in use by the Solutia WWTF [Waste Water Treatment Facility] and sewage exfiltration into the groundwater is possible. Therefore, sewage could easily have entered the 9th Street Ditch either overland from manhole overflows or from groundwater feeding into the ditch. Since, during the operation of the Solutia WWTF this sewage contained PCBs, the sewer outfall is one likely source for the PCBs in the 9th Street Ditch area." Id. at pg. 4. Mr. Harkins further stated that after closely paralleling the 9th Street Ditch, the sewer line from S/P's plant turns east along 10th and 11th Streets and then turns south following Highway 431 (Quintard) until it ultimately reaches the Anniston treatment plant. Id. Mr. Harkins concluded that "any overflows along this route could result in contamination of nearby areas with PCBs." Id.

In addition, there is direct physical evidence that Monsanto's PCBs found their way through sewers and/or runoff to the 9th Street Ditch area. In 1988, FMC Corporation's foundry personnel (FMC) discovered an oil-type material floating in the 9th Street Ditch and "globules" of this material at the bottom of the Ditch. See Exhibit 69. After notifying ADEM, FMC attempted to locate the source of the substance on the FMC property, but could not trace the globules to the FMC property. In 1993, a similar tar-like substance was found oozing from Monsanto's West Landfill which had been sold to

Alabama Power in 1961.[37] Id. and Exhibit 43. The substance was found to contain PCBs at nearly 600,000 ppm. Id. After examining the highly contaminated PCB tar-like material from S/P's West Landfill, the same FMC personnel reported that "the material looked exactly like the material" found in the 9th Street Ditch a few years earlier. Id. It is interesting to note that Monsanto itself described some of its PCB releases to Snow Creek as "globules" - the same description as that provided by FMC personnel in 1988. In a May 12, 1969, memo titled "Aroclors Clean-Up From Plant Effluents," Monsanto stated ". . . that a problem exists in Anniston is evident because 'free' globules of aroclors can be seen in Snow Creek." See Exhibit 66, pg. 3.

iii. PCBs from Monsanto's Manufacturing Plant Impacted the Mixing Zone Located Upstream of the Confluence Point of the 11th Street Ditch and Snow Creek

S/P also argues that there was no possible hydrogeologic connection between Monsanto's plant site and any areas in Anniston located above the confluence point of Snow Creek and the 11th Street Ditch, notably the 9th Street Ditch and properties between the 9th Street Ditch and the 11th Street Ditch. S/P's argument is that all of their PCBs only went into the 11th Street Ditch and it is therefore impossible that any of their PCBs could be found in any waters or properties located upstream of the confluence point of the 11th Street Ditch and Snow Creek. S/P's comments are based on the simple premise that water does not flow upstream (S/P even included in their comments a video of a ball floating downstream as proof of their argument). However, a review of floodzone and elevation maps shows that the entire area between the confluence of the 9th Street Ditch and Snow Creek and the confluence of the 11th Street Ditch and Snow Creek is a broad mixing zone. See Exhibits 48 and 51. Once PCB contaminated waters entered these areas it is highly likely that PCBs from S/P's plant site were directed to the 9th Street Ditch area and neighborhoods because of the downhill topography and extensive residential ditching. See Exhibit 51.

iv. Respondents are Not Significant Contributors of PCBs to the Creeks and Waterways

S/P have alleged that the Respondents released large quantities of PCBs from the spilling and dumping of transformer, capacitor, and hydraulic fluids into the creeks and waterways in the Anniston area, specifically the 9th Street Ditch and Snow Creek. S/P Comments, pp. 21-22. Based on the evidence the United States has gathered and evaluated, S/P's claim is unsubstantiated.

[37] The West End Landfill property has since been transferred from Alabama Power back to S/P.

First, sampling results from the 9th Street Ditch contained relatively low levels of PCBs. The highest level found by EPA contained PCBs at less than 9 ppm. These levels are not consistent with S/P's contention that the Respondents located along the 9th Street Ditch were dumping and spilling significant quantities of PCBs. For example, PCB levels in the 11th Street Ditch were found greater than 11,000 ppm prior to its removal and capping in 2005. See Exhibit 70. In fact, these high levels were detected even after Monsanto previously dredged 1,000 tons of contaminated soils from the 11th Street Ditch and 100 feet of Snow Creek in 1989. See Exhibit 41. The much lower levels of PCBs found in the 9th St. Ditch are consistent with what EPA would expect to find in an area contaminated by indirect water pathways, such as runoff, and air deposition.

In order to assess the true impact from the Respondents to the 9th Street Ditch and Snow Creek, in 2005, EPA undertook a Sediment Sampling effort in the areas of Snow Creek upstream of the confluence of the 9th Street Ditch and Snow Creek but downstream of the Lynchburg Foundry and Union Foundry. See Exhibit 71. In this "upstream" sampling event, EPA collected 20 samples from Snow Creek starting at the confluence of the 9th Street Ditch and Snow Creek. The area investigated was directly downstream of Union Foundry's plant site and the Lynchburg Foundry plant situated further north. S/P has alleged that Union Foundry was one of the most significant contributors of PCBs. See generally, S/P Comments. Of the 20 samples taken by EPA, no PCBs were detected in 18 of the samples. The PCB levels in the two samples where PCBs were found totaled 0.116 ppm and 0.551 ppm. Id. at Table 3, pg. 2. These two samples contained negligible levels of PCBs and were taken from the areas closest to the 9th Street Ditch. Hence, it is likely that these two low-level PCB detections are attributable to flooding at the 9th Street Ditch confluence with Snow Creek. In any event, the findings of EPA's Sediment Sampling investigation show that the Union Foundry and Lynchburg Foundry plants had little to no impact on Snow Creek and other downstream waterways.

In addition to EPA's Sediment Sampling investigation, the United States Geologic Service (USGS) undertook "A Reconnaissance Investigation of Polychlorinated Biphenyl Congeners in Aquatic Sediments Collected near Anniston, Alabama." See Exhibit 72. In this Investigation, the USGS took various sediment samples starting in the 11th Street Ditch and continuing downstream from Monsanto's PCB Manufacturing Plant some forty (40) miles to Lay Lake in the Coosa River system. Id. at pg. 6. The USGS took 13 samples along this corridor and conducted "PCB congener-specific analysis." Id. at pg. 4. This PCB congener-specific analysis enables the identification of PCB patterns or "fingerprints". Id. at pg. 5. Based on this analysis, the USGS determined that "the patterns of the congeners are strikingly similar from [sample to sample]. . . ." Id. at pg. 14. In fact, even a lay person can look at the chart on page 14 of the USGS study and see that the PCB fingerprint does not significantly vary from the 11th Street Ditch, where

Monsanto directly discharged its PCB wastes, all the way down to Lay Lake. Id. Although the USGS Study was based on a limited number of samples, the data indicates that PCBs found throughout the 40 miles of waterways are identical to those found near Monsanto's main PCB discharge point. It is highly unlikely that additional sampling would produce different results because it would be an improbable coincidence that all of the sample points in the USGS Study just happened to be from areas where only PCBs from Monsanto came to be located.

It is important to note that Snow Creek passes by approximately ten (10) current or former foundry locations, not all of which are Respondents, as it flows towards Choccolocco Creek and ultimately the Coosa River system. Given the USGS findings in its Investigation, this is informative as to the Respondents' contribution of PCBs to the 9th Street Ditch and Snow Creek. If the Respondents were dumping massive quantities of PCB liquids and oils into the 9th Street Ditch and Snow Creek, then EPA would expect to see the pattern or fingerprint of PCBs change as Snow Creek received these additional PCBs. In other words, the pattern of PCBs found in the 11th Street Ditch where Monsanto directly discharged its PCB wastes should be different than the pattern found in Choccolocco Creek if the Respondents, or any other entity for that matter, contributed any significant quantities of PCBs. That is simply not the case.

Finally, S/P also claim that even in the 11th Street Ditch and downstream waterways, so called "hot spots" or variability in the pattern of PCBs found in the sediments and waters are proof that Respondents are the source of these PCBs. While S/P admit that PCBs from the Monsanto PCB plant are in the waterways, S/P claims that variability in PCB levels proves that their PCB waste must be commingled with PCBs released from the Respondents. See S/P Comments, pp. 31-33; see also Menzie and DePinto. S/P argue that if it were S/P's PCBs in the waterways an expected pattern of PCBs would be evident, consisting of uniform decreasing levels with distance from S/P's plant and uniform decreasing levels with distance from the center of the creek. See generally DePinto and Menzie. However, as described by Dr. Medine, S/P's position is fundamentally flawed because a uniform decrease with distance necessarily assumes that PCB releases from S/P were fixed, that uniform stream characteristics exist, and the absence of floodplain alteration by dredging. See Exhibit 23. That is plainly not the case here. As shown from Monsanto's documents, S/P had variable PCB production levels and processes during their operational history; correspondingly, releases of PCBs also varied widely over time. One month they could have released considerably more PCBs than the previous month. Such variations occurred even on an hourly rate. Therefore, the level of PCBs admitted into the stream flow were not uniform. Additionally, the hydrologic conditions of the receiving waterway change dramatically seasonally, and during rain and drought conditions. The creeks and waterways are also physically far

from uniform. Eddies, water flow rates over areas of different depths, and natural and man-made changes in the creeks, all impact flow conditions. Further, it is well documented that significant historical dredging activities occurred in all the waterways. All of these factors explain the expected variable concentrations or "hot spots" found in the waterways. Id.

Sampling data from the waterways downstream of Monsanto's PCB plant indicates that levels of PCBs found in the waterways are consistent with the massive amounts of PCBs the plant released. Another of Monsanto's documents sums up the indisputable nature of Monsanto's PCB releases into the Anniston waterways. In the Progress Report previously cited above, dated July 21, 1970, Monsanto personnel were tasked to "report all data on Aroclor residues in the Snow Creek-Choccolocco Creek Watershed." Their contemporaneous summary of the data is telling:

> *"They [the samples] also indicate significant amounts of Aroclor in the mud and water of Choccolocco and Snow Creeks a considerable distance (15-20 miles) downstream from the Anniston plant. In fact, Aroclor concentrations can probably be found in the Coosa River system".* See Exhibit 21, pg. 3.

c. There is a Mechanical Placement Pathway for PCBs from the Monsanto Plant - Dredge Spoils and Monsanto's Use of Sands to Cleanup PCB Spills

As noted above, S/P claim that the only pathway for their PCBs to have reached the Anniston area environment is through direct "physical" runoff through the 11th Street Ditch and its downstream floodplain. Based on this false premise, S/P conclude that any PCBs outside of the 11th Street Ditch and its downstream floodplain could only have come from the Respondents through the "mechanical" placement of foundry sand and the use of dredged spoils from only the upstream creeks and waterways. While EPA agrees with S/P that enormous quantities of PCBs were released directly to the 11th Street Ditch, as this Response to Comments shows, there are numerous other pathways for Monsanto's PCBs to have contaminated the Anniston area including the same mechanical transport pathways S/P claim is unique to the Respondents. In fact, soils and sediments contaminated with PCBs from Monsanto's plant were routinely dredged and the dredged materials were used as fill in residential properties. In addition, Monsanto used sand to soak up PCB spills at its plant and was then taken and used as fill in residential yards.

Soils and sediments that were in the downstream floodplain that were contaminated with PCBs from Monsanto's plant were dredged and transported to areas outside the floodplain. All ditches, streams, creeks, and stormwater drainage channels in

the City of Anniston, including those downstream of the Monsanto plant, were routinely dredged. See Exhibit 73. The dredged materials were placed in low lying areas in Anniston. The dredged materials were also placed near the ditch, stream, creek or channel from which they had been removed, and residents took these dredged materials for use as fill in their yards. See Exhibit 74; also see page 10 of DePinto stating that *"[r]esidents close to the creek and to dredge spoil piles used the material on occasion to replenish eroded top soil from their yards, as has indeed been testified to by Mr. Clare Ware."* The residents who took the dredged materials may also have used foundry sand as fill material as well.

In 1999, S/P took 29 samples of materials dredged from areas of Snow Creek downstream from their plant. Every sample tested contained PCBs. Fifteen of the 29 samples contained PCB levels above 9 ppm; 12 of 29 samples contained PCB levels between 1 ppm and 9 ppm; and only two samples had PCB levels below 1 ppm. See Exhibit 75. There is no question, as S/P's own experts agree, that dredged materials from downstream of the Monsanto plant were mechanically transported from the floodplain into residential yards, and S/P's own sampling shows those dredged materials from downstream of the plant were contaminated with PCBs.

In addition, excessive amounts of PCBs were spilled during Monsanto's operations, and Monsanto's long-standing practice, through at least August 17, 1970, was to soak up these PCBs spills with considerable quantities of sand, creating sand disposal problems. See Exhibit 20. The spilled PCBs were tracked off of the plant by vehicles and people and the PCB contaminated sand was also taken by Monsanto's employees for use as fill in residential properties. See Exhibits 23 and 76. Thus, dirt and sand contaminated by PCBs from the Monsanto plant were mechanically transported away from the plant, to areas outside the downstream floodplain.

4. **S/P Comments**: *That EPA's de minimis finding regarding Respondents' PCB contribution to the PCB facility is illegal and unsupported by the evidence, and that the Agreement is unfair.*

Response: EPA's *De minimis* Determination is Legal, Fair, and Supported by the Evidence.

In the Agreement, the United States and EPA entered into a *de minimis* settlement for the PCB facility with the Respondents pursuant to CERCLA Section 122(g) and EPA policies. In finding that Respondents are *de minimis* under the law for PCBs, EPA has determined that the Respondents' releases of PCBs into the Anniston environment are

minimal in nature compared to the overall volume of PCBs that comprise the Anniston PCB facility. EPA has also determined that the Respondents' PCB releases are not more toxic in nature than the other PCBs found at the facility. It is important to note that EPA is not stating that the Respondents did not use or release PCBs or that they ran "clean" operations.[38] S/P's comments seem to miss this crucial point; EPA's investigation has concluded that the Respondents did in fact use some PCBs and likely released some PCBs into the Anniston environment. However, the amounts of PCBs released by the Respondents were, even presuming a worst case scenario, *de minimis* in comparison with the total amount of PCBs found in the Anniston environment. EPA made this determination only after exhaustive review of an enormous amount of data regarding Anniston.

Congress made it very plain in CERCLA that EPA should, as soon as possible, settle with *de minimis* parties. According to Congress:

> *de minimus (sic) settlements are intended to relieve the covered parties from prolonged and costly litigation. Thus, new subsection 122(g)(3) requires [EPA] to reach settlements in these cases as soon as the necessary information is available to establish the party's de minimus status. It is the clear intention of this Committee that such settlements should be expedited and that every effort be made to reach them at the earliest possible moment.*

See H. Rpt. 99-253(III) at 31 (1985), reprinted in 1986 U.S.C.C.A.N. 3038, 3054 (emphasis added).

S/P, at the beginning of their comments, raise three reasons why EPA should not have entered into the *de minimis* settlement with Respondents. First, they state that the finding *"is not in the best interest of the citizens of Anniston."* Second, they state that the *de minimis* finding *"is not authorized by CERCLA."* Third, they state that the *de minimis* finding is not supported by the facts *"uncovered through the partial discovery"* in their lawsuit against the Respondents. See S/P Comments, pg. 2. The first two of these statements by S/P are wrong, while the third is largely irrelevant. S/P actually provide little or no support in their voluminous comments for the first two reasons they advance

[38]EPA is well aware that foundries can be dirty operations. For example, see FMC historical document attached as Exhibit 77 which indicates that at times FMC utilized poor environmental practices. Also, note that this document references the foundry's PCB use in tranformers and capacitors. In response to the Foundries' poor environmental practices, EPA and ADEM have taken many different actions - ranging from criminal prosecutions to inspections and regulatory fines - against the Foundries over the years.

regarding why EPA should withdraw from the Agreement.

a. The Agreement is in the Best Interest of the Public.

Interestingly, in S/P's Comments, after the initial reference on page 2 to the *"best interest"* of the public as the first reason why EPA should withdraw from the Agreement, S/P makes no further mention of the *"best interest"* of the public in the remaining 34 pages of the document. Likewise, there is no other reference to the *"best interest"* of the public in any of the other 250,000 pages of comments S/P submitted. So, although S/P raise the *"best interest"* of the public as a reason why EPA should withdraw from the Agreement, they offer no explanation why the Agreement is not in the best overall public interest. Instead, S/P argues that the Agreement is unfair to them specifically. EPA disagrees and addresses the fairness of the Agreement in Section 3 below.

It is clear from S/P's comments that the real reason for their opposition to the Agreement is their own pecuniary interest in continuing their contribution lawsuit against Respondents. S/P wrongly confuse the best overall public interest with their own financial interests. As the democratic institution tasked with making laws in the public interest, Congress passed CERCLA and specifically tasked the President, through his delagatees at EPA and the Department of Justice, to settle with polluters for cleanup. Section 122(a) of the statute specifically states that *"Whenever practicable and in the public interest, as determined by the President, the President shall act to facilitate agreements under this section that are in the public interest."* Section 122(g), the specific *de minimis* section of the law, echoes this language. Additionally, as detailed below, the plain language of Section 122(g) and its legislative history make it clear that Congress specifically found that it is in the best overall public interest for EPA to enter into *de minimis* settlements *"as soon as possible"* to prevent contributors of small amounts of waste from being caught up in costly contribution lawsuits. EPA has great experience in crafting CERCLA settlements that forward the primary objectives of CERCLA. The Agreement clearly achieves CERCLA's goal of having responsible parties conduct cleanup as expeditiously as possible in a scientifically sound manner. It is undisputable that the Agreement requires Respondents to spend a significant sum of money conducting lead and PCB cleanup at potentially thousands of residences. The *de minimis* portion of the Agreement also forwards the public interest by specifically meeting the mandate of Congress to provide settlements to *de minimis* parties as soon as possible to prevent them from being dragged through costly litigation. Thus, Congress has already specifically determined that it is in the best public interest for EPA to make *de minimis* determinations to prevent the very type of lawsuit S/P has brought against Respondents.

Additionally, EPA and DOJ believe the Agreement is in the public interest because it will protect public health and the environment, conserve government resources and preserve the Superfund by securing a cleanup at polluter expense, and allow for the expeditious commencement of the work at the Sites. The United States believes the Agreement is exceptional in many aspects. The scope of the cleanup is expansive, and over 14,000 residential properties could be addressed. The cleanup levels, 400 ppm for lead, and 1 ppm for PCBs, are the strictest cleanup levels at any Superfund site. The community outreach component of the Agreement is broad-reaching and innovative. EPA will recover all future oversight costs and millions of dollars in past costs, and ADEM will recover up to $200,000 per year in oversight costs. There is no certainty that the United States would be able to obtain as much relief through litigation against Respondents.

S/P comments that EPA should simply issue a Unilateral Administrative Order (UAO) pursuant to Section 106 of CERCLA to require Respondents to conduct the lead cleanup. See S/P Legal Comments, pg. 7. An agreement is clearly preferable to EPA over a UAO for a number of important reasons. First, as a matter of policy, EPA does not issue UAOs to parties that are cooperative and willing to sign an Agreement. The UAO is a tool of last, not first, resort for EPA. Respondents have cooperated with EPA and have agreed to do the lead cleanup EPA believes is necessary and to pay more than their fair share for the PCB facility. Second, EPA has found that over the long-term, working cooperatively with parties is normally a more efficient method to achieve cleanup than to order them against their will. Third, a UAO is no guarantee the cleanup will occur, because the parties receiving the UAO may choose to litigate rather than comply. Such a case would involve a commitment of substantial resources by the United States. Alternatively, a UAO recipient may also agree to perform the work and then sue the United States for complete reimbursement under Section 106(b) of the statute. Given all of the facts discussed above, it is clear that the Agreement, which achieves significant cleanup and precludes the possibility of litigation or a Section 106(b) petition, is in the overall public interest.

b. The Agreement and EPA's *De minimis* Finding Are Authorized By CERCLA

The second reason S/P gives in their comment regarding why EPA should withdraw from the Agreement is because the *de minimis* settlement is *"not authorized by CERCLA."* This comment is clearly erroneous since CERCLA specifically authorizes EPA to make *de minimis* findings and to settle with *de minimis* parties in Section 122(g). Neither S/P's Comment document or S/P's Legal Comment document contain any argument in support of S/P's statement that the *de minimis* settlement is not authorized by

CERCLA. Instead, S/P argues at length that EPA is acting unfairly or that the facts of the case do not support EPA's *de minimis* finding, but nowhere do they offer any support for their statement that CERCLA does not authorize *de minimis* settlements. In any event, CERCLA most certainly authorizes *de minimis* settlements and mandates that EPA enter into them *"as soon as possible"*.

CERCLA's *de minimis* provisions provide that:

Whenever practicable and in the public interest, as determined by the President, the President shall as promptly as possible reach a final settlement with a potentially responsible party in an administrative or civil action under section 9606 or 9607 of this title if such settlement involves only a minor portion of the response costs at the facility concerned and, in the judgment of the President, the conditions in either of the following subparagraph (A) or (B) are met:

(A) Both of the following are minimal in comparison to other hazardous substances at the facility:

(i) The amount of hazardous substances contributed by that party to the facility.

(ii) The toxic or other hazardous effects of the substances contributed by that party to the facility.

Further, Section 122(g)(3), titled "Expedited Agreement", requires that the *"President shall reach any such settlement or grant any such covenant not to sue as soon as possible after the President has available the information necessary to reach such a settlement or grant such a covenant."* (emphasis added).

In addition to the specific language of Section 122(g), in considering S/P's arguments in opposition to the United States' efforts to reach the cleanup Agreement with Respondents, it is also important to recognize the broad remedial purposes of CERCLA. *"Congressional intent behind [CERCLA] was to have pollution cleaned up as quickly as possible and to see that the responsible polluters are made to pay for the cleanup."* Blasland, Bouck & Lee, Inc. v. City of North Miami, 283 F.3d 1286 at 1304 (11th Cir. 2002). To do this, Congress provided incentives for PRPs to enter into cleanup agreements. *"It is well-accepted that 'Congress designed CERCLA to encourage early settlement by parties potentially responsible for cleanup costs."* State of Arizona v. Motorola, 139 F.R.D. 141, 145 (D. Ariz. 1991). The incentive Congress provided responsible parties to encourage settlements was to grant them protection from

contribution actions. Sections 113(f)(2) and 122(g)(5)of CERCLA allow settlors *"to pay their agreed settlement and end their involvement in costly litigation . . . ."* Id. at 145.

Thus, pursuant to both the specific language of CERCLA Section 122(g) and the broader language and intent of CERCLA as a whole, EPA is tasked with settling with those parties that have *de minimis* liability under CERCLA to pay for or perform their fair share of necessary response actions. Since there is a serious lead and PCB contamination problem in Anniston, and Respondents' releases of PCBs meet the tests required under the law, EPA is fulfilling its statutory mandate by reaching a *de minimis* settlement with them. Contrary to S/P's claims, EPA's actions in negotiating and implementing the Agreement are precisely what CERCLA authorizes and encourages.

c. The Facts and Evidence Support EPA's *De minimis* Finding. Furthermore, the Agreement is Fair.

The third reason given by S/P for why EPA should withdraw from the Agreement is that EPA's *de minimis* finding *"is not supported by the facts uncovered [by P/S] through the partial discovery in Solutia v. McWane and in P/S's investigation."* Before getting into the details of its basis for making the *de minimis* determination, EPA must again point out that S/P's third reason is essentially irrelevant. EPA does not base its actions in any matter solely on the investigations or findings of private parties. The phase of discovery that S/P is presently conducting in a private court case is of no concern to EPA. EPA does not wait for private party lawsuits to develop technical information on which to base its decisions. Throughout S/P's comments there is an ingrained notion that EPA should be restrained from acting, or is somehow negligent if it acts to address contamination in Anniston before S/P is finished conducting its private lawsuit. For example, S/P goes to some lengths in their comments to point out how Respondents and S/P have sparred over their discovery schedule. See page 3 & 4 of S/P's Comment. Those issues are irrelevant to EPA. **EPA based its decisions regarding the *de minimis* portion of the Agreement on an enormous, exhaustive record of information it gathered from all sources, including most importantly, its own extensive evidence gathering efforts.** There is nothing in the law requiring EPA to wait for S/P to finish its lawsuit before EPA takes action. In fact, CERCLA plainly says the exact opposite, mandating EPA make *de minimis* findings *"as soon as possible."* Indeed, the legislative history clearly states that EPA should move as quickly as possible to make *de minimis* findings specifically to prevent parties like S/P from pursuing costly lawsuits and discovery against *de minimis* parties.

i. EPA's *De minimis* guidance

EPA's primary guidance document on *de minimis* settlements, is titled "*Streamlined Approach for Settlements with De minimis Waste Contributors under CERCLA Section 122(g)(1)(A)*", July 30, 1993, OSWER Directive #9834.7-1D, attached as Exhibit 78.[39] In relevant part, the guidance states that "*To determine whether a PRP is eligible for a waste contributor de minimis settlement, a Region need only assess the individual PRP's waste contribution relative to the volume of waste at the Site.*" Footnote 2 of the Guidance provides that "*Generally, the Region should then divide the individual contribution by the volume of waste at the Site; this establishes the PRPs volumetric percentage of waste contribution.*"

With respect to calculating a *de minimis* volumetric percentage, the guidance states ". . .*a Region needs to determine the appropriate cutoff for de minimis and non-de minimis parties at the Site*". This guidance does not establish a set percentage for eligibility for a *de minimis* waste contributor settlement; we believe that decision is primarily site specific." Footnote 5 of the Guidance states "*Please note that statistically (of the de minimis settlements entered to date), the de minimis cutoff has ranged from .07% to 10.0%, the mean was 1.059%, and the median was 1.0%.*"

ii. Summary of EPA's *De minimis* determination

In accordance with Section 122(g) of CERCLA and the EPA guidance, EPA has determined that the volume of PCBs each Respondent contributed to the PCB facility is minimal in comparison to the total volume of PCBs at the PCB facility. EPA has very conservatively estimated the total volume of PCBs at the facility to be over 90 million pounds. As detailed below, EPA has also estimated the maximum volume of PCBs each one of the Respondents may have contributed to the Anniston PCB Site. The maximum volume any one Respondent is estimated to have contributed to the Anniston PCB Site is 53,240 pounds or 0.0597% (about one-half of one-tenth of a percent) of the total volume of PCBs at the facility, well below EPA's typical 1% *de minimis* cut off. In most *de minimis* settlements, EPA uses a 1% cut off (i.e., responsible parties who contributed less than 1% of the total volume of hazardous substances at the facility are eligible for a *de minimis* settlement). Based on this determination, EPA is justified under CERCLA to provide a *de minimis* settlement of Respondents' liability for the Anniston PCB facility in the Agreement. The Agreement is fair on this point because under the terms of the Agreement, Respondents are conducting cleanup work at the PCB facility that has a value in excess of the Respondents' minimal contribution of PCBs to the facility. In other

[39] Earlier *de minimis* guidances are included with Exhibit 78.

words, under the Agreement, Respondents' financial contribution to the PCB facility is greater than their actual contribution of PCBs to the facility. Therefore, the *de minimis* finding is justified and represents a very favorable settlement for the general public.

EPA has also determined, as mandated by Section 122(g), that the PCBs released by Respondents are no more toxic than the other PCBs found at the facility. In fact, the types of PCBs used by Respondents were the liquid, less chlorinated Aroclors such as 1242, 1248, and 1254. Monsanto also released these identical Aroclors into the environment.

S/P argue on page 23 of their Legal Comments that Monsanto's PCBs should be considered less toxic because they are somehow less costly to remove from the environment than the PCBs Respondents are likely to have released. This argument simply makes no sense. Even setting aside the fact that it is Monsanto's PCBs which are actually found throughout the entire Anniston area and not the Respondents, the vast majority of the future costs at the Anniston PCB Site are likely to come from the dredging and cleanup of the contaminated waterways. S/P admits liability for these areas. The cost of cleaning up Residential Yards is a comparatively small portion of the overall costs of the potential final PCB cleanup, which S/P themselves have estimated could cost as much as $500 million. Thus, the majority of the costs at the Site are likely to be driven by Monsanto's PCBs - not Respondents.

(1) Total volume of PCBs at the PCB Facility

Since the statute requires EPA to compare each Respondent's release of PCBs to the facility to the total volume of PCBs found at the facility, EPA first calculated the total volume of PCBs at the facility. EPA's National Enforcement Investigations Center (NEIC) prepared a volumetric analysis of S/P's contribution of PCBs to the Site. This report is entitled "*Technical Report, Evaluation of Monsanto's Polychlorinated Biphenyl (PCB) Process for PCB losses at the Anniston Plant*, March 2005." See Exhibit 26.[40] Relying primarily on Monsanto historic documents and extrapolation for periods with no data, the report estimated that Monsanto contributed PCBs to the PCB facility in the following volumes: Air Emissions of 59,755 pounds; Effluent Discharges of 1,757,721 pounds; and Dumping of 87,229,412 pounds of PCB wastes, for a total contribution of PCBs by Monsanto of **89,046,888 pounds of PCBs.**

[40]The report takes a very conservative approach to quantifying Monsanto's releases of PCBs because it only counts PCB amounts which Monsanto documents provide specific quantities for. It excludes any amount of PCBs for areas or processes where Monsanto's documents clearly indicate releases of PCBs but do not quantify them specifically. Thus, Monsanto's actual quantity of PCB releases to Anniston are likely considerably higher.

By comparison, EPA estimates that Respondents, in the aggregate, in a worst-case scenario, may have contributed up to **200,682 pounds of PCBs** to the Anniston PCB facility. Added to Monsanto's contribution, this brings the estimated total volume of PCBs at the Site to **89,247,570** pounds. As stated above, the maximum volume any one Respondent is estimated to have contributed to the PCB facility is 53,240 pounds which is 0.0597%, or about one-half of one-tenth of a percent of the total volume of PCBs at the Site.

(2) EPA has Conducted an Exhaustive Investigation into the Potential and Actual Use of PCBs by Respondents

Contrary to the assertions in S/Ps comments, EPA has conducted an exhaustive investigation into the potential and actual use of PCBs by Respondents and concluded that there is simply no evidence that Respondents utilized large quantities of PCBs in their operations. First of all, the basic facts of the case undercut S/P's arguments that Respondents are the sole contributor of all of the PCBs in Anniston outside the narrow floodplain for which S/P admits some liability. Monsanto made all of the PCBs used in the United States at only two plants, one of which is in Anniston. Together, the two plants produced over one billion pounds of PCBs. Both of the former Monsanto PCB plants and the areas around them are now federal Superfund sites heavily contaminated with PCBs. Ultimately, Monsanto's PCBs were used by tens of thousands of businesses throughout the United States and the world. S/P is essentially arguing that the foundries (representing a tiny fraction of their many thousands of customers) released enough PCBs to contaminate all of Anniston. The evidence shows that it is not a mere coincidence that both towns where Monsanto made PCBs are heavily contaminated with PCBs - and that the PCBs in Anniston are found at levels well above what is found in a "normal" town.

In addition to considering all information provided by S/P to EPA, both in their comments and in previous submittals, EPA considered other evidence prior to making its determination that Respondents are *de minimis* for PCBs. All of these materials supporting the determination are part of EPA's records. The various categories of materials EPA reviewed are listed below:

- EPA sent CERCLA Section 104(e) information requests regarding their use and release of hazardous substances to 38 parties. EPA reviewed voluminous responses to CERCLA information requests by Respondents.

- In 1999-2001, EPA and ADEM conducted CERCLA Preliminary Assessments and Site Investigations on 13 current or former foundry locations, including each of

Respondents' plant properties, and six non-foundry operations. These investigations included on-site sampling. After review of the investigations, including the sampling data, EPA and ADEM both agreed that nine of the current or former foundry operations should be given No Further Remedial Action Planned status in the federal EPA CERCLIS data base. The other four facilities are currently being addressed by ADEM pursuant to RCRA. None of the 19 investigated operations presently warrant federal CERCLA action for PCB contamination.

- EPA and ADEM conducted various investigations and sampling activities on Respondents' facilities pursuant to RCRA. EPA reviewed all of this RCRA material. Additionally, EPA in 2000, conducted further inspections and sampling at Respondents' plant sites as part of an EPA regional enforcement initiative. Again, EPA determined that while some PCBs were found at Respondents' plant sites, they were not found at levels warranting any further federal cleanup action.

- EPA reviewed available materials regarding the foundries operations from other EPA programs such as the Toxic Substances Control program and Clean Water Act Permit program.

- EPA reviewed available discovery generated during S/P's contribution lawsuit, including review of depositions, documents produced, and other materials.

- EPA, in its investigation of the foundries, conducted hundreds of witness interviews.

- EPA reviewed many other technical reports regarding PCBs in Anniston, including information produced from other federal, state and local agencies such as ATSDR, the Fish and Wildlife Service, and other DOI offices. EPA also reviewed ADEM documents regarding air and water data gathered by the foundries over time as part of their ongoing reporting requirements to ADEM.

- EPA conducted its own sampling and data gathering efforts through its Science and Ecosystem Support Division (SESD) based in Athens, Georgia, and its Environmental Response Team out of New Jersey. For example, as previously described, EPA sampled Snow Creek, upstream of Monsanto but downstream of several foundries.

- EPA also developed a 9th Street Ditch Report, a Sediment Sampling Report, and a Report on Monsanto's air emitted PCBs. Additionally, EPA had internal experts

review the Anniston sewer system, Monsanto's PCB sewer disposal practices, the air meteorological pathways from Monsanto, and historic drainage pathways in the area.

- EPA technical personnel from the Air program, the Water program, the Waste program, SESD, ERT, and the NEIC all contributed to reviewing available PCB data. EPA also did extensive review of available historic records and documents regarding the possible uses of PCBs in foundries and conducted a general survey of available technical and chemical data regarding PCBs.

- In addition to its in-house expertise, EPA also utilized a non-EPA chemist from the United States Geologic Service to review available data and provide expertise on PCBs to EPA. The NEIC and USGS experts helped develop EPA's data on PCB congener analysis which conclusively "fingerprints" the PCBs found throughout Anniston to the Monsanto operations. EPA also retained an outside expert in the "fate and transport" of PCBs to review EPA conclusions, and to opine generally on the PCB contamination in Anniston.

- EPA's PCB program reviewed all available evidence of PCB usages by the Respondents and developed a Volumetric Report of the maximum or "worst-case" scenario use of PCBs by Respondents.

With respect to EPA's *de minimis* determination, EPA's extensive investigation indicated that compared to Monsanto's PCB releases, the Respondents released minimal amounts of PCBs into the environment through leaking transformers and capacitors. Additionally, EPA's findings indicate that to the extent the Respondents released PCBs, they were of a type that is certainly no more toxic than Monsanto's releases because the types of PCBs used by foundries included the same types of liquid PCBs released by Monsanto. It should be noted, however, that EPA has uncovered **no** evidence showing that hydraulic fluid used by Respondents contained PCBs or that the Respondents used PCBs or released PCBs in any manner other than from transformers and capacitors. S/P continues to allege that it is possible that Respondents' hydraulic equipment contained PCBs, but EPA is not aware of any witness statement, sales receipt, or other document proving that the Respondents used hydraulic fluid containing PCBs.[41]

[41]Instead of evidence, S/P presents only allegations. For example, S/P claims, on page 29 of their Comment, that a U.S. Pipe employee stated that a U.S. Pipe plant in another town used PCB containing hydraulic fluid. However, the employee **did not** state that the U.S. Pipe plant in Anniston used the same kind of fluid. EPA has not independently uncovered any evidence that Respondents' foundries in Anniston used PCB hydraulic fluids. Ironically, EPA has uncovered evidence that Monsanto used PCBs in its own hydraulic fluid and that these fluids were spilled and mopped up with sands. See Exhibit 14 at pg. 13. The document states "Amount of Aroclor lost. 10 gallons/day. . .

Additionally, S/P previously has claimed to EPA that the Respondents used solid PCBs in investment casting waxes, but the evidence uncovered by EPA, as discussed above, makes it clear that the type of foundries represented by the Respondents did not use solid PCBs or investment casting waxes. PCBs were used in casting waxes only in foundries that produced intricate metal parts, such as for the airplane industry. The Anniston foundries represented by the Respondents manufactured rough iron pipes that did not involve the investment casting wax process. Instead, the Anniston foundries used massive quantities of sand for their molds.

As discussed above, the foundry Respondents generated enormous volumes of sand as part of their production process. The sand was used for molds for the foundries' metal products. Molten metal was poured into sand molds to make soil pipes, fittings, valves, and other products. The sand molds would become contaminated with lead when the scrap metal that was melted contained lead. When the scrap metal contained lead, lead was also released into the air, and was then deposited on the ground at the Anniston Lead Site. When the sand was no longer useable for molds, it was stored outside the foundry buildings in large piles, exposed to the elements. Other waste materials generated by the foundries were also placed into the piles of sand. The sand was blown by the wind and washed away by the rain, releasing lead into the environment. The primary lead pathway, however, was the Respondents' practice of allowing local residents to take truckloads of foundry sand to use as fill material at residential properties.

S/P repeatedly comments that Respondents must be held responsible for foundry sand wherever it is located. See S/P Comments, pp. 3-6. This comment indicates that S/P misunderstands the nature of the risks to the public health and environment posed by foundry sand. The Respondents clearly generated millions of tons of sand, but sampling evidence indicates that only a small percentage of this sand is contaminated with lead or PCBs at levels of concern to EPA. Existing evidence indicates that the vast majority of the sand, while it may contain foundry debris, does not pose a risk to human health or the environment.

Also, S/P comment that EPA has done "little or nothing" to identify the extent to which foundry sand contains PCBs. See S/P Comments, pg. 20. This is simply untrue. As already described, EPA has conducted extensive investigation of foundry operations and has data from over 7,000 samples taken in the Anniston area - where as S/P states on page 3 of the S/P Comments - foundry sand is located "all over." EPA has also sampled foundry plant locations and foundry landfills for PCBs. EPA's investigation has shown that it is Monsanto's PCBs, and not the Respondents' foundry sand, that have caused

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Amount of wastes. 80,000 [pounds]/yr . . . Composition of wastes . . . Hydraulic fluids, Aroclors 50%."

nearly all of the PCB contamination in the Anniston area.

With respect to possible PCB contamination by Respondents, S/P have alleged that (1) Respondents used PCBs in their transformers and capacitors and hydraulic fluid; (2) these things often leaked or were spilled; (3) Respondents cleaned up the leaks with foundry sand; and (4) the foundry sand was then ultimately disposed of in yards. As described above, EPA has no evidence showing that Respondents used PCBs in their hydraulic fluid.[42] Other problems exist with S/P's contention that PCBs found throughout Anniston are solely linked to foundry sand. First and foremost, as shown in Section V.B.3.a.iv. above, the data indicates that the types of PCBs EPA has predominately found throughout Anniston can be conclusively "fingerprinted" to Monsanto. Second, if foundry sand was primarily contaminated with PCBs because it was used to soak up PCB spills, then EPA's sampling data would not show that the vast majority of residential properties are contaminated with widespread low levels of PCBs between non-detect and 10ppm. If PCB oils were soaked up with sand and that sand was the sole source of PCBs outside of the floodplain as S/P contend, then EPA would routinely find sand in yards that contains very high levels of PCBs. The data simply does not support this. In fact, of the thousands of properties sampled, fewer than 50 contained PCBs at levels over 10 ppm. Very few yards, if any, contain the levels of PCBs one would expect to find if pure PCB oils had been soaked up directly into the foundry sands. Instead, the data generally indicates widespread low levels of PCB consistent with air deposition contamination throughout Anniston. Surprisingly, even S/P's Comments support EPA's position regarding this point. On page 11 of the S/P Comments, S/P admits that the "normal levels of PCBs in properties in Anniston" range from 1ppm to 10ppm. Those are not levels of contamination associated with a "hot spot" of PCBs spilled into, or soaked up, by sand. The few examples of "hot spots" of PCBs found on foundry properties indicate that when there was a spill from a PCB transformer or capacitor, the immediate area where it was spilled contained very high levels of PCBs. That type of finding is inconsistent with the typical "normal" low levels of PCBs uniformly spread throughout Anniston.

S/P consistently make allegations that the Respondents released huge quantities of PCBs, however, the "evidence" they point to for support of their positions is completely lacking. For example, in the Patterson comment on page 1-5, Patterson goes to great lengths to list out observations from his review of statements S/P took from 16 former foundry employees. Tellingly, his summaries of those employee statements do not even make one single reference to PCBs. S/P's position is not based on any real evidence of massive PCB use and release by the Respondents, but rather seems to be wholly

[42]Again, in contrast, Monsanto's own documents indicate that it generated a waste stream of PCB contaminated hydraulic fluid. See Exhibit 14 at pg. 13.

constructed of supposition and conjecture.

In sum, the evidence indicates that while the foundries did likely use and release some PCBs, those releases were minimal in nature compared to Monsanto's and resulted in localized "hot spots" of PCB contamination that are almost always found on a foundry property and not in residential yards. Based on current information, it is evident that the occasional spilling and mopping up of PCBs in sand by foundries is not the cause of the wide-spread comparatively low-level "normal" PCB contamination found throughout Anniston.

(3) Worst Case - Amount of PCBs Potentially Contributed by each Respondent to the PCB Facility

As just discussed, S/P allege that Respondents are significant contributors of PCBs to the Anniston PCB facility but S/P have not provided the United States with any actual evidence or proof to support this allegation, despite repeated requests by both EPA and DOJ. **However, S/P have provided EPA with a report that demonstrates that Respondents qualify for a *de minimis* settlement for PCBs at the Anniston PCB facility.**

In March, 2005, S/P presented the United States with a report which estimates PCBs contributed to the Anniston PCB facility by Union Foundry. See Exhibit 79. In this document, S/P estimated the number of transformers, capacitors and oil switches at Union Foundry's plant. Next, S/P determined how much fluid each transformer, capacitor and oil switch held, and then calculated the weight of PCBs in each, thereby reaching a total volume of PCBs.[43] S/P assumed that every ounce of PCBs used by Union Foundry was released into the environment. S/P's final conclusion was that Union Foundry released PCBs totaling approximately 69,000 lbs. S/P's estimation indicates that Union Foundry released only 0.0773% of the total volume of PCBs estimated by EPA to have been released at the Anniston PCB facility. Thus, S/P's own report indicates that Respondents, MeadWestvaco Corp., MW Custom Papers, LLC, and McWane, Inc., who have liability for the Union Foundry facility, are clearly *de minimis*. In submitting the report to EPA, S/P made it clear that they believed Union Foundry was the foundry which released the most PCBs.

[43]EPA disagrees with S/P's methodology and assumptions which result in a severe overestimation of Union Foundry's PCB releases; however, as described above, solely for the purposes of generating worst case PCB estimates for each Respondent, EPA followed S/P's methodology herein.

As mentioned, very little evidence exists showing PCB use or release by Respondents. The information reviewed by EPA showed that Respondents only used PCBs in electrical equipment (e.g. transformers and capacitors); therefore, EPA followed S/P's methodology to calculate a maximum possible amount of PCBs contributed by each Respondent to the Anniston PCB facility. EPA's Toxic Substance Control Act program which regulates PCBs, prepared estimates of the maximum amount of PCBs used in transformers and capacitors at Respondents' facilities. These estimates show that even if every drop of PCBs from the transformers and capacitors at Respondents' facilities was released into the environment, Respondents' contribution of PCBs to the PCB facility would still be minimal in comparison to the total amount of PCBs at the PCB facility.

The results of EPA's analysis are provided below. In addition, a Volumetric Table is attached as Exhibit 80, which provides EPA's analysis of each Respondents' volumetric contribution, by percentage, to the Anniston PCB facility. Each Respondents' maximum possible contribution of PCBs to the PCB facility is listed below in summary fashion.

In order to reach a worst case estimate of PCBs potentially contributed by Respondents, unless there was specific information otherwise, EPA assumed all the transformers contained askarel oil. Askarel oil is a type of PCB transformer oil with a very high PCB content. Askarel oil weighs about twelve pounds per gallon and is about 60% by weight PCBs. EPA assumed all the capacitors contained 100% PCB oil. All capacitors manufactured after 1979 would be non-PCB. The estimate of Respondents' maximum possible PCB contributions are based on the assumption that all capacitors and transformers were PCB filled, unless otherwise indicated. For some Respondents EPA was able to complete a more reasonable estimate based on evidence that the Respondent properly exchanged PCB capacitors and transformers for non-PCB equipment.

Facility: **Alabama Pipe and Foundry**
Respondents: **MeadWestvaco Corp. and MW Custom Papers, LLC**

EPA's information for this foundry showed that it had three transformers. EPA estimated that each transformer contained 100 gallons of oil each.[44] Hence, EPA estimated the maximum possible amount of PCBs contributed by Alabama Pipe and Foundry to the PCB facility to be 2,160 lbs. (300 gallons times 12 equals 3,600 lbs. times .6 equals 2,160 lbs of PCBs). This amount clearly is minimal compared to the total amount of PCBs at the PCB facility.

[44]EPA used 100 gallon transformers based on the assumption that Alabama Pipe and Foundry might have had similar electrical needs to Alabama Foundry and Ornamental Foundry.

Facility: **Anniston Foundry**
Respondents: **MeadWestvaco Corp. and MW Custom Papers, LLC**

No specific information relating to PCB containing equipment is available. This foundry operated from 1917 to approximately 1949. Sometime between 1969 and 1977, the foundry building was destroyed by fire. Because the operation of this foundry predated the commercial production and use of PCBs, the original transformers did not contain PCBs, but were probably mineral oil or dry-type transformers with no PCBs. Transformers last thirty to forty years, and it is likely that the original non-PCB transformers would have been in use when Anniston Foundry ceased operations in the late 40's. Thus, it is likely that this foundry contributed no PCBs, but at worst, contributed a minimal amount of PCBs compared to the total amount of PCBs at the PCB facility.

Facility: **Ornamental Foundry**
Respondents: **MeadWestvaco Corp. and MW Custom Papers, LLC**

Documents show that there were three low-level PCB contaminated transformers and three non-PCB transformers owned by Alabama Power at this facility. These transformers contained less than 1.5 lbs of PCBs.[45] Further, there were three additional 100 gallon transformers at Ornamental Foundry according to a 1952 map. These three transformers were removed before 1963. There is no evidence these three transformers contained PCBs. Indeed, the evidence points the other way. Ornamental Foundry began operations in 1924, prior to commercial production and use of PCBs, so the original transformers did not contain PCBs, but were probably mineral oil or dry-type transformers. Since transformers last thirty to forty years, it is likely that the original non-PCB transformers still would have been in use when Ornamental Foundry ceased operations in the late 40's. Nevertheless, EPA assumed these three transformers contained PCBs, and that all of the PCBs were released at the PCB facility. Hence, EPA estimated that the maximum possible amount of PCBs contributed by Ornamental Foundry to the PCB facility to be 2,161.5 lbs. (300 gallons times 12 equals 3600 lbs. times .6 equals 2160 lbs of PCBs). This amount clearly is minimal compared to the total amount of PCBs at the PCB facility.

[45]PCB contaminated transformers have concentrations between 50 ppm and 499 ppm. In addition, 300 gallons of oil with 499 ppm concentration of PCBs would contain less than 1.5 pounds of PCBs. Therefore, assuming that these three PCB contaminated transformers contained 100 gallons of 499 ppm PCB oil each, the total weight of PCBs would only be less than 1.5 pounds.

Samples in the EPA/ADEM Preliminary Assessment/Site Investigation (PA/SI) for Ornamental Foundry were tested for PCBs and only one sample contained any PCBs and those were at a very low level of .065ppm. These sampling results further corroborate that Ornamental Foundry had little to no impact at the PCB facility.

Facility: **Standard Foundry**
Respondents: **MeadWestvaco Corp. and MW Custom Papers, LLC**

Available documents indicate that three 25 kVa GE transformers were installed at Standard Foundry on February 15, 1921, prior to commercial production and use of PCBs. EPA assumed that these transformers were replaced by PCBs at a later date, and that all of the PCBs were released at the PCB facility. EPA estimated each transformer contained 18 gallons of dielectric fluid. Hence, EPA estimated that the maximum possible amount of PCBs contributed by Standard Foundry to the PCB facility to be 388 lbs. of PCBs. (54 gallons times 12 times .6 equals 388). This amount clearly is minimal compared to the total amount of PCBs at the PCB facility.

Samples in the EPA/ADEM PA/SI for Standard Foundry were tested for PCBs and only one sample contained any PCBs and those were at a very low level of .022ppm. These sampling results further corroborate that Standard Foundry had little to no impact at the PCB facility.

Facility: **Union Foundry**
Respondents: **MeadWestvaco Corp.; MW Custom Papers, LLC; McWane, Inc. for itself and as the successor by merger with Ransom Industries, L.P.**

Available information from a 1990s inventory shows that Union Foundry had 34 transformers with a total of 17,652 kVa transformer capacity. For the purposes of estimating the maximum possible amount of PCBs that Union Foundry could have contributed to the PCB facility, EPA assumed ½ gallon of oil per kVa, which equates to 8,826 gallons of transformer oil. EPA also assumed that all of the oil contained PCBs at 12 lbs. per gallon and that the oil was 60% PCBs by weight. Hence, EPA estimated that the maximum possible amount of PCBs contributed by Union Foundry to the PCB facility to be 63,547 lbs. of PCBs. This amount clearly is minimal compared to the total amount of PCBs at the PCB facility. Overall, EPA's analysis (estimating the maximum volume of PCBs used by the foundry and

assuming every drop was released at the PCB facility) indicates this amount is very conservative and improbable. Therefore, S/P's claim that Union Foundry released 69,000 lbs of PCBs is highly inflated.[46]

As of 1999, Union Foundry had retrofilled any PCB containing transformers. Before the retrofilling, information shows that Union Foundry had only six transformers with PCB concentrations above 50 ppm out of the thirty-four they possessed. Assuming all six of the transformers with PCB concentrations above 50 ppm contained askarel oil,[47] a more reasonable estimate of Union Foundry's total amount of PCBs possibly contributed to the Anniston PCB facility is 4,633 lbs.

EPA sampling from 2000 indicated low levels of PCBs near Union Foundry's waste water outfalls. In December 2004, EPA sediment sampling downstream of the Union Foundry facility indicated negligible PCBs (the highest finding was less than .5 ppm of PCBs). These sampling results further corroborate that Union Foundry had little impact at the PCB facility.

Facility: **Water Pipe Plant a/k/a Lynchburg Foundry**
Respondents: **MeadWestvaco Corp. and MW Custom Papers, LLC**

Available documents indicate that three 150 kVa transformers were installed in 1928, before the commercial production and use of PCBs; therefore, the original transformers did not contain PCBs, but were probably mineral oil or dry-type transformers. These transformers were not included in EPA's estimate. In addition, available documents indicate that from 1949 to 1973, a bank of transformers totaling 1,560 kVa was located at this foundry. EPA assumed that the bank of transformers contained PCBs, and that all of the PCBs were released at the PCB facility. Hence, EPA estimated that the maximum possible amount of PCBs contributed by this foundry to the PCB facility to be 5,616 lbs. of PCBs. (1,560 k Va divided by 2 for 780 gallons times 12 times .6). This amount clearly is minimal

[46]There is no information regarding PCBs in Union Foundry's capacitors and therefore, EPA did not include the capacitors in its estimate of PCBs. It is EPA's opinion that S/P's estimate regarding switches was without basis and should be discounted as the 1990s inventory indicated only six switches none of which were highly contaminated with PCBs. Even if the switches contained askarel oil, the amount of PCBs would be minimal because 200 gallons of askarel oil would equal about one pound of PCBs.

[47]There is no reason to assume that Union Foundry had more askarel transformers earlier in its history than it had in 1999. It appears that throughout its operations, Union Foundry had a combination of askarel transformers (containing PCBs) and mineral oil transformers (containing no PCBs).

compared to the total amount of PCBs at the PCB facility.

Facility: **M&H Valve**
Respondents: **McWane, Inc. for itself and as the successor by merger with Ransom Industries, L.P. and DII Industries LLC**

Available documents indicate 21 transformers and 91 PCB capacitors were located at this foundry. The estimated total gallons for these transformers is 4,409 which equates to 31,744 lbs. of PCBs. Assuming the capacitors are primary capacitors, the total volume of each capacitor would equal approximately 7.5 gallons. EPA assumed that the dielectric fluid inside the capacitor occupies 50% of the available internal volume yielding 3.75 gallons per capacitor. There are approximately 4,095 lbs. of PCBs from capacitors (91 capacitors X 3.75 gallons/capacitor X 12 pounds/gallon = 4,095 pounds). Hence, EPA estimated that the maximum possible amount of PCBs contributed by M&H Valve to the PCB facility to be 35,839 lbs. of PCBs. This amount clearly is minimal compared to the total amount of PCBs at the PCB facility.

This estimate is likely overstated because information from 1989 & 2000[48] indicates that M&H had only two PCB transformers that had ever been in use (of the thirty-five transformers found). These two PCB transformers contained 304 gallons each[49] totaling 4,380 lbs of PCBs. Another 19 transformers were "PCB contaminated" or "non-PCB"[50] with less than 10 lbs. total PCBs. (19 X 100 = 1,900 gallons; 210 gallons of 499ppm oil = 1 pound of PCBs; 1,900 gallons divided by 210 gallons = 9.05 pounds of PCBs). Hence, EPA estimated that a more reasonable amount of PCBs possibly contributed by M&H Valve to the PCB facility to be 8,484 lbs. of PCBs (4,389 from transformers + 4,095 from capacitors). This amount clearly is minimal compared to the total amount of PCBs at the PCB facility.

[48]The 1989 document was a letter from the foundry to the Anniston Fire Department listing the locations of their transformers and capacitors.

[49]The Section 6(e) PCB Investigation Report dated July 6, 2000, listed these two transformers as containing 304 gallons. This report showed that there were eighty capacitors in use and three pole-top PCB transformers (in addition to the two transformers listed above) but the pole-top transformers were the only ones PCB contaminated.

[50]A "non-PCB" transformer contains less than 50 ppm PCBs. A "PCB-contaminated" transformer contains between 50 ppm to less than 500 ppm PCBs. A PCB transformer contains 500 ppm PCBs or greater.

Samples in the EPA/ADEM PA/SI for M&H Valve were tested for PCBs and most samples did not detect PCBs. The two samples which contained any PCBs were at a very low levels of .025 ppm and .61 ppm. These sampling results further corroborate that M&H Valve had little to no impact at the PCB facility.

Facility: **U.S. Pipe and Foundry a/k/a U.S. Castings**
Respondents: **United States Pipe and Foundry Company, Inc., and Walter Industries, Inc.**

Available documents showed 20 transformers and 39 capacitors at this foundry. Seventeen of the transformers contained PCBs, but three did not. To be conservative, EPA included the three transformers that did not contain PCBs in its estimate. The 20 transformers total 6947 k Va, and contain approximately 3474 gallons dielectric fluid, and a total of 25,012 lbs. of PCBs. The 39 capacitors are estimated to contain 3.75 gallons each of dielectric fluid for a total of 146.25 gallons of dielectric fluid, and 1,775 lbs. of PCBs. Hence, EPA estimated that the maximum possible amount of PCBs contributed by this foundry to the PCB facility to be 26,767 lbs. of PCBs. This amount clearly is minimal compared to the total amount of PCBs at the PCB facility.

Facilities: **FMC Forge and FMC Foundry**
Respondents: **FMC Corporation and United Defense L.P.**

FMC documentation was combined for these facilities. Available documents showed that FMC had 39 transformers and 46 capacitors. EPA assumed that these transformers and capacitors contained PCBs, and that all of the PCBs were released at the PCB facility. The 39 transformers contain approximately 7107 gallons of dielectric fluid, and a total of 51,170 pounds of PCBs. The 46 capacitors are estimated to contain 3.75 gallons each of dielectric fluid for a total of 172.5 gallons of dielectric fluid, and 2070 lbs. of PCBs in capacitors. Hence, EPA estimated that the maximum possible amount of PCBs contributed by this foundry to the PCB facility to be 53,240 lbs. of PCBs. This amount clearly is minimal compared to the total amount of PCBs at the PCB facility.

The documentation reviewed by EPA indicated that in 1984 FMC actually calculated the weight of PCBs in their transformers to be 288 pounds. Hence, EPA estimated that a more reasonable amount of PCBs contributed by this foundry to the PCB facility to be 2358 lbs. of PCBs (288 lbs. from transformers + 2070 lbs. from capacitors). This amount clearly is minimal compared to the total amount of PCBs at the PCB facility.

Further, these facilities began operating in the 1940s and in 1984 documented their inventory of PCBs. Based on a 30 to 40 year estimated life of transformers, it is unlikely that all of the PCBs in their transformers were disposed of at the PCB Site. This is because the transformers would have lasted about as long as the operating life of the foundry and the original non-PCB transformers would still have been in use decades later. The estimated 53,240 lbs. used in EPA's volumetric is likely a gross exaggeration of any true contribution.

Facility: **Lee Brass**
Respondent: **Phelps Dodge Industries**

Available information showed three 100 k Va oil-filled transformers in the main substation, all owned by Alabama Power and all non-PCB. These transformers were not included in EPA's estimate. Several other transformers and circuit breakers were dry type units that contain no PCBs, and they were not included in EPA's estimate. Lee Brass did have some PCB transformers that were properly disposed before 1990, but the available information does not indicate the number or size of these transformers and they were not included in EPA's estimate. Additional equipment that may have contained PCBs include a total of nine capacitor banks at two locations. EPA assumed there were twelve capacitors per bank[51] and that at one time, all of these were PCB capacitors and that all of the PCBs were released at the PCB facility. Further, EPA assumed 3.75 gallons of oil per capacitor at 12 pounds per gallon for an estimated amount of PCBs as follows: 108 capacitor X 3.75 gallons/capacitor X 12 lbs./gallon = 4,860 lbs. of PCBs.

It is unlikely that a substantial amount of this estimated maximum PCB inventory was released into the environment because a 1994 TSCA inspection report notes that the capacitors in six of the nine banks had been properly disposed in 1988 -1989 and were replaced with non-PCB units, and that no leaks or compliance problems were noted for the remaining capacitors. Nevertheless, EPA included all of the capacitors and estimated that the maximum possible amount of PCBs contributed by this foundry to the PCB facility to be 4860 lbs. of PCBs. This amount clearly is minimal compared to the total amount of PCBs at the PCB facility.

[51]A LAW report dated 4/9/97 indicates that Lee Brass had over 100 capacitors at one time. This is consistent with EPA's estimate of 108 capacitors based on a 10/94 ADEM inspection.

Facility: **Lee Brothers Foundry (now Lauderdale Foundry)**
Respondent: **Phelps Dodge Industries**

There is no information regarding this facility. This facility started operating as early as 1917and stopped operating in the 40's; therefore, it is likely that no PCB containing equipment was in use at the foundry. However, using information derived from the Lee Brass foundry, EPA made several assumptions to derive an estimate for this foundry. First, EPA assumed that the foundry had three 100 k Va transformers which contained 56 gallons of PCB oil[52] at 12 pounds per gallon which is 60% by weight PCBs, equating to approximately 1,209 lbs. of PCBs from transformers. Next, EPA assumed that the Lee Brothers foundry had the same number of capacitors as the Lee Brass facility, equating to approximately 4860 lbs. of PCBs. Totaling the PCB estimates of 1,209 lbs. from transformers and 4860 lbs. from capacitors equates to 6,069 lbs. of PCBs. EPA estimated that the maximum possible amount of PCBs contributed by this foundry to the PCB facility to be 6,069 lbs. of PCBs. This amount clearly is minimal compared to the total amount of PCBs at the PCB facility.

Facility: **Huron Valley Steel f/k/a U.S. Reduction**
Respondents: **Huron Valley Steel and MRC Holdings, Inc.**

EPA has minimal evidence on any PCB contribution by Huron Valley Steel or MRC Holdings (U.S. Reduction). These companies are not foundries, but rather they process automobile shredder residue. Automobile shredder residue is known to contain some amount of PCBs, but the concentrations are low and, assuming the residue (fluff) is placed in a landfill, the PCBs are unlikely to be released into the environment. Sampling data provided by HVS confirmed levels averaging about 27ppm of PCBs in its processed materials. While there have been some findings of PCBs near Huron Valley Steel, there is no evidence to suggest that Huron Valley Steel contributed anything but minimal levels of PCBs to the PCB facility.

In addition, MRC Holdings only operated the facility from 1978-1982 and Huron Valley Steel from 1982 to the present. Therefore, these companies operated the facility after PCB production had been banned and operated subject to TSCA during their entire period of operation. Hence, there is no

[52]EPA assumed that the Lee Brothers transformers were PCB even though ADEM determined that Lee Brass had non-PCB transformers. This assumption was made to reach the most conservative estimate of PCBs potentially contributed by the foundries.

reason to believe any potentially PCB containing transformer or capacitor was disposed of at the facility. Huron Valley Steel assembled an analysis of PCB releases from their facility and quantified it at 35 pounds of PCBs. EPA has no contrary evidence. This amount clearly is minimal compared to the total amount of PCBs at the PCB facility.

(4) Respondents are Paying More than a Fair Share Under the *De minimis* Component of the Agreement

EPA has determined that Respondents will be contributing more than their fair share of cleanup to the Anniston PCB facility when compared to their contribution of PCBs to the facility. EPA has estimated that Respondents collectively will be **contributing between $3 million and $5 million** in cleanup towards the Anniston PCB Site which equates to approximately a **.65% to 15%** contribution to the total PCB Site costs, yet Respondents, collectively, only contributed **0.2249%** of the PCBs at the PCB Site. Hence, they will be contributing, at a minimum, almost three times their share of liability and potentially much more. EPA's analysis is set forth in Exhibit 81.

EPA used a multiple step process to determine if the Respondents are contributing a fair share towards the cleanup of the PCB facility.

- First, EPA estimated the total cost of cleaning up the entire PCB facility, i.e., the cost of cleaning up the entire area where PCBs have come to be located in Anniston and its environs. To avoid further conflict with S/P, solely for the purposes of analyzing the fairness of the Agreement, EPA utilized S/P's own predictions of the range of final cleanup costs. On the low end, S/P estimated that if the final chosen remedy for the facility involved minimal cleanup action and long-term monitoring (essentially leaving PCBs in place in the waterways) the future costs for the Anniston PCB Site would be $30 million. On the high end, S/P estimated costs could climb as high as $500 million if extensive dredging in waterways and lakes is required. Thus, S/P's cost estimates for the PCB facility range from $30 million to $500 million.[53] See Exhibit 3.

- Second, EPA estimated the total value of the PCB cleanup that Respondents are conducting under the Agreement. This estimate is subject to a range of possible outcomes because of uncertainty regarding the number of yards ultimately subject

[53]In using S/P's own cost estimates herein, EPA is not endorsing S/P estimates. EPA will not reach its own final cost estimates for the cleanup until the conclusion of the RI/FS.

to cleanup in the Zone B area. However, EPA analyzed the available data from the thousands of samples already taken and projected the percentages of yards that will need cleanup for lead and/or PCBs in each of the four zones covered by the Agreement. Figure 2 below illustrates the results:

Figure 2
(data as of 02/05)

Zone	# Residential Properties	# Properties Sampled	% w/ Lead ≥ 400ppm	% w/ PCBs > 1ppm	% w/ Lead and PCBs
A	2,124	415	30.49%	3.13%	2.41%
B	10,133	524	9.60%	2.48%	0.76%
C	1,859	467	12.15%	27.62%	6.00%
D	137	34	13.73%	32.35%	35.29%
All Zones	14,253	1,440	16.78%	11.53%	3.75%

- Third, EPA estimated the actual costs of cleaning up the average residential property in Anniston using the actual cost data from EPA's own extensive Anniston cleanup operations. EPA's estimate for the approximate average residential property cleanup in Anniston is $50,000 per yard. S/P has informed EPA that it estimates its cleanup costs at approximately $23,000 per yard, but EPA has not reviewed any S/P data in support of this statement and presumes the figure is related solely to S/P's "hard" costs of paying contractors. [54]

- Fourth, EPA projected three different possible scenarios regarding the level of public participation that might occur in Zone B. EPA projected the estimate of

[54]EPA uses a full cost accounting system that takes into account the actual total cost of the cleanup of a property for the Agency. EPA's methodology of cleanup cost accounting has been the subject of several unsuccessful legal challenges and has been fully upheld by every court that has reviewed it, including the U.S. Court of Appeals for the D.C. Circuit. EPA's system often at first blush seems to give inflated cleanup costs, but on closer examination is seen to truly account for all costs. EPA takes into account all "hard" costs like contractor payments, employee payroll, disposal fees, and also includes the costs of all employees and contracts involved in supporting the cleanup, such as legal costs, and an indirect cost rate that captures the full cost to the Agency of running the program that conducts the cleanup.

yards needing cleanup under the Agreement based on projected 25%, 50% and 75% public participation rates. Using EPA's cost accounting method, the Agency estimated that pursuant to the Agreement, the Respondents will contribute between $3 million and $5 million dollars towards the cleanup of PCBs at the Anniston PCB facility depending on the percentage of public participation in Zone B. Contrary to S/P's comments, the PCB cleanup being conducted under the Agreement by Respondents is not incidental to the lead cleanup. Pursuant to the Agreement, the Respondents must cleanup a limited number of yards contaminated above cleanup standards with only PCBs. Respondents must also conduct PCB sampling at potentially thousands of yards. Additionally, Respondents must cleanup the part or parts of any Residential Properties that contain only PCBs if it is determined that any other part or parts of the property contains lead above action levels. See Section III.B. above for a detailed explanation. This is very important, because it means that the Respondents will be cleaning up PCBs that are not simply being dug up when the Respondents perform a lead cleanup.[55]

- Fifth, EPA then compared the "low end" estimate of the Respondents' cleanup contribution for PCBs to the "high end" of S/P's estimate of total PCB facility final cleanup costs. From this, EPA determined that even in the most unfavorable (i.e., the lowest percentage contributed) scenario, the Respondents are paying 0.65% of the total PCB cleanup costs. When compared to EPA's finding that the Respondents are collectively responsible for only 0.22% of the PCBs that make up the PCB facility, the 0.65% contribution is a more than justifiable fair share payment. On the other hand, EPA also compared the "high end" estimate of PCB cleanup by Respondents to S/P's "low end" estimate of total PCB facility costs and determined that in the most favorable (i.e., highest percentage contributed) scenario, the Respondents are paying more than 15% of the total PCB facility cleanup costs - which far outweighs their 0.22% contribution of PCBs. See Exhibit 81. The Respondents are contributing more to the cleanup of the Anniston PCB facility under the Agreement than S/P could realistically hope to gain in their contribution case. **Every PCB yard or portion of a yard, that the Respondents cleanup under the Agreement, is a yard that S/P will never have to cleanup under the PCD. Thus, the Agreement directly reduces S/P's potential overall liability for PCB cleanup in Anniston.**

[55]Under the PCD, if S/P discover a yard that has PCBs above cleanup standards in the front and only lead above cleanup levels in the back, S/P do not clean up the lead only part of the yard. Conversely, under the Agreement, Respondents must clean up the PCB only part or parts of every yard that has lead over 400ppm in any portion of the property. The end result of this distinction is that Respondents will be cleaning up significant amounts of PCBs not related to the need for a lead cleanup.

(5) The PCB "Facility" is all of the Areas of Anniston Where PCBs Have Come to be Located - Including the Monsanto Dumps and the Foundry Dumps

Since its first involvement in Anniston, EPA has identified the entire Anniston PCB Site as one "facility" as that term is statutorily defined in CERCLA.[56] As detailed below, CERCLA gives EPA broad discretion and flexibility in defining a facility. EPA's historic determination that the PCB contamination in the Anniston area constitutes a single facility is entirely consistent with CERCLA's definition of the term. S/P's comment that *"The United States has erred in designating the entire Anniston PCB Site as one 'facility',"* is wrong both factually and legally. In particular, S/P argue that the PCB contamination spread throughout Anniston from the Monsanto plant should be considered three separate CERCLA PCB facilities. See S/P Legal Comments, pp. 19-21. S/P also argue, in another apparent insinuation of collusive behavior by EPA, that EPA's *"decision to identify one 'PCB Site' facility in Anniston makes it easier for the United States to treat the Foundries PCB contributions as de minimis . . . ."* Id.

Before responding directly to S/P's erroneous comments, EPA must first point out that any debate over the nature of the Anniston PCB "facility" is really nothing more than a "red herring" issue. Regardless of whether the PCB contamination in Anniston is considered one, three, or even ten separate "facilities," the bottom line remains the same - the vast majority of the PCB contamination in the Anniston area was released by Monsanto. Respondents conversely released little PCBs to the environment. Thus, the PCB settlement in the Agreement is fair no matter how S/P seeks to define the PCB "facility."

S/P's completely unsupported allegation that EPA recently decided there was only one PCB "facility" in Anniston to justify its *de minimis* decision simply does not fit with the facts of the case. The United States Motion to Enter the Revised PCD, dated October 18, 2002, stated:

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[56]One of EPA's early CERCLA actions in Anniston, in 2001, was to have its expert national Environmental Response Team (ERT) conduct a study of the Monsanto landfills. EPA did this because citizens were concerned that the landfills were a continuing source of Monsanto's PCB to yards in the community. ERT determined that no conclusion could be reached because data gaps existed. In response, EPA determined that the entire Monsanto plant, including the landfills, must be included in the overall CERCLA PCB investigation and cleanup under CERCLA. See ERT Report Exhibit 82. EPA has always considered the Monsanto PCB dumps a major source of PCBs to the the Anniston area. EPA is currently investigating through the CERCLA RI/FS under the PCD whether the dumps are an ongoing or future threat to the community.

The complete cleanup of the Anniston PCB Site presents complicated technical issues ***because a large diverse geographic area is impacted****. The area of contamination includes Defendants' Property, Snow and Choccolocco Creeks and their floodplains, as well as, numerous residential and commercial properties.* See Exhibit 83, pg. 7. (emphasis added)

Additionally, both the NTC Removal and the RI/FS Agreements under the PCD state that the Site is "a facility" - not multiple "facilities." Specifically, Section 7, Paragraph 21 of the RI/FS Agreement states that "the Site is a 'facility' as defined in Section 101(9) of CERCLA . . . ." Likewise, the NTC Removal Agreement in Section 5, Paragraph 1, states "the Anniston PCB Site is a 'facility' as defined in Section 101(9) of CERCLA." Thus it is absolutely clear that EPA and S/P in 2002, long before the Agreement was even conceived, both understood that the Anniston PCB Site was one "facility" under the statute. Furthermore, Paragraph 43 of the RI/FS Agreement states "the Parties understand that the residential properties are part of the Site, which is the subject of this RI/FS." If S/P truly believed that the PCB Site was really made up of multiple "facilities," they would not have agreed to a PCD that clearly states the direct opposite.

S/P's arguments ring even more hollow because their own Conceptual Site Model submitted under the PCD breaks the Anniston PCB Site into four specific areas for CERCLA work purposes. These areas are known as Operable Units. Operable Unit is defined in the CERCLA National Contingency Plan (NCP) as "a discrete action that comprises an incremental step toward comprehensively addressing site problems." See 40 C.F.R. 300.5. One of the Operable Units is the Monsanto Plant property and the Monsanto landfills. Thus, pursuant to the CERCLA PCD, the actual S/P plan to address the Site includes conducting an RI/FS investigation on the Operable Unit made up of the plant property and the landfills. S/P cannot now claim the landfills are a separate CERCLA facility (solely addressed under RCRA) when their own CERCLA work plan for the PCB Site includes them as one of four Operable Units to be addressed under the CERCLA PCD.

As discussed above, the NTC Removal and RI/FS Agreements under the PCD both state that the Site is one CERCLA facility. The Site is defined in the PCD as the entire area where Monsanto's and Solutia's hazardous substances, including PCBs have come to be located. The PCD states that the term "Site":

shall mean, for the purposes of this PCD, the Anniston PCB Site, which consists of the area where hazardous substances, including PCBs associated with releases or discharges as a result of the operations, including waste disposal, of the Anniston plant by Solutia Inc., Monsanto

Company, and their predecessors have come to be located. The Site includes, but is not limited to the area covered by the RCRA Permit.[57]

S/P repeatedly comment that the Monsanto landfills are being addressed under RCRA, and therefore, should not be considered part of the "facility" for CERCLA purposes. This argument is likewise undone by the truth. The Monsanto landfills are expressly a part of the CERCLA- authorized work being done under the PCD.[58] The PCD's definition of the CERCLA Site specifically includes the "*area covered by the RCRA Permit.*" The landfills and plant were clearly covered by Solutia's RCRA Permit.

During the negotiations for the PCD, EPA believed, as it still does now, that Monsanto's PCBs are widespread throughout the entire Anniston geographic area.[59] Again, the pleadings and other documents from that time period clearly reflect that it was EPA's position that Monsanto's and Solutia's PCB contamination was widespread throughout Anniston and represented one CERCLA "facility."[60] For example, in the United State's Response to Comments on the PCD dated October 22, 2002, the United States wrote:

> "*The Proposed Decree requires: (1) cleaning up the most highly contaminated residences first pursuant to the incorporated Removal Order, (2) expediting the cleanup of residential properties through the Non-Time Critical (NTC) Removal Agreement, and (3) a detailed study to provide EPA with the information necessary to determine the best final cleanup solution for the* ***entire*** *Site through the Remedial Investigation/Feasibility Study (RI/FS) Agreement.*" See Exhibit 83, pg. 3 (emphasis added).

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[57]S/P have also claimed that EPA somehow improperly defined the Anniston PCB Site differently in the PCD than in the Agreement. EPA disagrees and has addressed this issue in previous pleadings. See United Steates' Reply to Defendants' June 15, 2005 Memorandum included in Exhibit 10 at pg. 13.

[58]See Exhibit 84, letter from ADEM dated August 25, 2003, stating: ". . .the Department is deferring all further enforcement of the . . .the RCRA Permit to the Agency for enforcement under the consent decree." The PCD is a CERCLA authorized consent decree.

[59]ADEM agrees. See Exhibit 85, a letter from ADEM demanding that S/P expand their PCB cleanup work to areas outside the floodplain.

[60]As shown above, it is clear from contemporaneous pleadings and the terms of the PCD, that both EPA and S/P understood the term "facility" under the statute and the term "Site" under the PCD to be essentially synonymous in regards to PCB contamination in Anniston. However, it should be understood that the term "Site" is actually used in the PCD solely to define the limits of the Work obligations of S/P under the PCD. Naturally, S/P's obligations to conduct CERCLA Work under the PCD includes all of the areas where their PCBs have come to be located. Outside the confines of the PCD itself, the term "Site" has no legal meaning as CERCLA contains no definition of "Site."

On page 7 of the same pleading, EPA wrote:

> *"Moreover, in response to public concerns, the United States and Defendants have modified the Lodged Decree to expedite the* ***cleanup of all residential yards contaminated with PCBs.****"*

Further, on page 36 of EPA stated:

> *"EPA's decision to address the* ***entire*** *Anniston PCB Site under CERCLA,* ***including the landfills*** *and Defendants' property, was based on site specific reasons . . . ."* (emphasis added).

Additionally, it is not just EPA documents that reflect that EPA considered all of the PCB contamination one facility. In an Order dated September 9, 2003, settling a federal tort case against S/P, District Court Judge Clemon specifically incorporated S/P's work obligations under the PCD as the settlement of the plaintiffs' property damage, nuisance and trespass claims. The plaintiffs in that matter numbered over 17,000 people who lived all over the Anniston area. In fact, the vast majority of those plaintiffs live far outside the narrow area of the downstream floodplain that S/P now comment is the limit of their PCB liability.[61] It is only logical that Judge Clemon and the settling parties to the tort case believed at the time that the PCD extended to the same areas as the property claims of the 17,000 plaintiffs, otherwise the Court's incorporation of the PCD in that settlement makes no sense. See Exhibit 86.

S/P falsely accuse EPA of recently making the decision to treat all of the PCB contamination in Anniston as one facility - solely to justify its *de minimis* determination. Ironically, S/P now demand that EPA overturn its longstanding decision that all the PCB contamination is one facility - solely for reason of denying Respondents' *de minimis* status. S/P advance no compelling technical or programmatic rationale why EPA should change its position that all of the PCB contamination is one "facility." S/P's only reason for demanding the change is that they think it benefits them and would hurt Respondents. Dividing the Anniston PCB Site into multiple CERCLA facilities would cause EPA many potential problems. Initially, all of EPA's internal documents and records, including oversight and response cost records, bills, payroll, and contracts, would have to be revisited and segregated from one site into three new sites. This might not even be

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[61]Judge Clemon's Order specifically references that S/P's obligations under the PCD have a value of $51.2 million dollars. S/P has only spent a small portion of this sum doing work in yards under the PCD so far, but now seek to escape their obligations under the PCD and the tort settlement by threatening to "ask Judge Clemon to rule on the extent of its responsibility for PCB contamination in Anniston." See S/P Comments, pg. 29.

possible at this late point in time. There are also a host of potential legal issues with breaking the PCB Site into multiple sites. For instance, there might be potentially different statute of limitations under CERCLA that could run for each facility. Going forward, EPA would have tremendous extra internal burdens in terms of contracting, billing, time-keeping and related issues. Clearly, breaking the Anniston PCB Site into multiple sites or facilities, years after the cleanup has started, makes absolutely no sense for EPA. Particularly, if the sole reason for doing so would be to deny contributors of small amounts of PCBs to the Anniston area a *de minimis* settlement.

S/P argue that case law does not support classifying the Anniston PCB Site as one CERCLA facility and cite for support Union Carbide Corp. v. Thiokol., 890 F. Supp. 1035 (S.D. Ga. 1994). See S/P Legal Comments, pg. 20. S/P state that the District Court in that case found that different areas were different facilities because the areas were:

> "*. . . geographically distinct from the landfill, contain a variety of wastes that were not present in the landfill, may require different removal and remedial actions than the landfill and were not treated as a part of a unitary CERCLA facility with the landfill.*"

S/P's reliance on Thiokol is misplaced because the facts in Anniston differ in crucial ways from the facts in that case. In Anniston, the PCB contamination was released from one major source and is spread through the whole Anniston area. The PCB contamination is obviously the same waste, not a variety of different wastes. The entire Anniston area is being handled under one unified CERCLA cleanup and the whole area is presently subject to one CERCLA RI/FS with different Operable Units. In fact, in Thiokol the Court specifically stated that "*the SWMUs [the Solid Waste Management Areas at issue in that case] were not treated as 'operable units' of the remedial action at the landfill, but rather as a separate environmental problem.*" In Anniston, by contrast, all of the areas of PCB contamination are being treated as Operable Units under the RI/FS and PCD.

No precedent exists where a court has ruled that the same hazardous substance, released from the same primary source, spread in a geographically contiguous fashion from that source, that is being addressed as a single CERCLA site constitutes more than one facility. There is simply no basis for such a ruling under the law. CERCLA defines "facility" as broadly and flexibly as possible - it is as small as one building or pipe or as large as everywhere a hazardous substance has come to be located. There is nothing in the statute suggesting that one broad contiguous swath of PCB contamination released from the same primary source must be subdivided into multiple facilities. Notably, in Section 104(d)(4) of CERCLA, Congress even granted EPA broad authority to treat

noncontiguous areas as one facility on the basis of geography or the actual or potential threat to the public health or the environment. See CERCLA Section 104(d)(4). One only has to look at an Anniston map showing the widespread nature of the PCB contamination to understand that subdividing the contamination into multiple facilities would be at best a useless and arbitrary exercise.

A survey of case law regarding the term "facility" clearly indicates that courts have uniformly recognized EPA's broad discretion to determine how best to apply the flexible definition of "facility" at sites. See, generally United States v. Carolina Transformer Co., 978 F.2d 832 (4th Cir. 1992); Nurad, Inc. v. Hooper & Sons Co., 966 F.2d 837 (4th Cir. 1992) cert. denied, 506 U.S. 940 (1992); United States v. Township of Brighton, 153 F.3d 307 (6th Cir. 1998); Northwestern Mutual Life Ins. Co. v. Atlantic Research Corp., 847 F. Supp. 389 (E.D.Va. 1994); Axel Johnson, Inc. v. Carroll Carolina Oil Company Inc., 191 F.3d 409 (4th Cir. 1999).

The Court, in CYTEC Industries Inc., v. B.F. Goodrich Co., 232 F. Supp. 2d 821 (S.D. Ohio 2002), gave an excellent analysis of the broad, flexible nature of the term "facility." The Court, in discussing how it should apply the two clauses in the definition of facility in CERCLA Section 101(9) stated that:

> *While Congress did not indicate specifically just how a court should choose between the two clauses, it would seem logical to assume that it intended that the choice that would best serve the underlying purposes of CERCLA would be the appropriate choice in a given case.* Id. at 836.

The Court in Cytec went on to explain that "*. . . the broadest geographical definition of a facility that is appropriate under the facts and circumstances of a given case would likely best advance CERCLA's underlying purposes. . .*" Id. The Court continued:

> *In certain cases, it may well be that only source of a hazardous substance is one of the specific structures or devices enumerated in clause (A). In such a case, that clause would provide the appropriate definition of facility. On the other hand, there are many cases in which a site or area where hazardous substances have come to be located will contain many of the specific structures and devices referred to in clause (A). Attempting to apply the definition of facility in clause (A) in such cases may lead to problematic results, such as arguments separating a building from the land beneath it; . . . and the ultimate absurdity of considering each hazardous waste container in an area as a separate facility. . . . This court concludes that usually, although perhaps not always, the definition of facility will be*

the entire site or area, including single or contiguous properties, where hazardous wastes have been deposited as part of the same operation or management. Id.

Clearly, EPA's action in treating the entire Anniston PCB Site or "facility" as a single facility is reasonable, in accord with CERCLA, and consistent with courts' interpretations of the term. S/P's claim that the PCB Site should be split into multiple facilities solely to make EPA's *de minimis* determination more difficult is not supported by the facts and history of the site or the law.

Under almost any "facility" scenario, the Agreement still represents a fair settlement. For example, even if the PCB contamination was subdivided into the three separate PCB facilities as S/P suggest; that is, the plant property and landfills, the waterways, and areas outside the floodplains - the Agreement would still be a fair and reasonable settlement. The Respondents would have little or no liability for the facility made up of the Monsanto plant and dumps. Respondents would likewise have at most *de minimis* liability for the facility comprised of the waterways and creeks downstream of Monsanto. As discussed above in Section 5.B.3.b.iv., EPA's investigation shows the Respondents made comparatively little to no contribution of PCBs to the waterways. Thus, EPA's studies indicate that the foundries minimal contribution to the PCBs in the waterways and would likely qualify them as *de minimis* for this second facility. Even in the third facility that S/P propose, consisting of residential areas outside the floodplain, the Agreement represents a fair settlement of Respondents' PCB liability given the relative proportion of Monsanto's and Respondents' release of PCBs into the residential yards.

Additionally, if both lead and PCB contamination in the residential properties are considered in combination, it is clear that the Agreement actually requires the Respondents to pay the lion's share of the overall cleanup costs for the residential properties outside of the floodplain. For example, EPA estimates that the total PCB and lead cleanup costs for residential properties (based on EPA full cost accounting and reasonable worst case scenario projections) could range as high as $120 million for lead and $50 million for PCBs. Under the Agreement, EPA estimates the Respondents will pay up to $120 million for lead and $3 to $5 million for PCBs. Therefore, in terms of total costs for the cleanup of residential properties outside the floodplain, the Respondents are paying for the bulk of the costs. As noted above, every property with PCBs that the Respondents clean up under the Agreement, is a property S/P will not be asked by EPA to address under the PCD. Thus, even if multiple facilities exist, as suggested by S/P, the Agreement is fair no matter how the Site is divided up.

Finally, S/P also comments that EPA, in its *de minimis* determination, unfairly counts the PCBs in Monsanto's dumps but neglects to count the PCBs in Respondents' various landfills. S/P's Comment is wrong. EPA, as shown above, estimated the Respondents' total releases of PCBs based on a worst case scenario in which EPA presumed that every ounce of PCBs that the Respondents used was released into the environment. Thus, EPA counted all of Respondents' total possible PCB releases regardless of where they have come to be located. Whether it went in a landfill or on the ground or in sand is irrelevant because all of those areas are part of the Anniston PCB facility. This is an important point to consider when weighing the overall fairness of the Agreement. In conducting its *de minimis* calculation, EPA counted only the Monsanto PCBs documented by their own records as actually released and compared that figure to all the PCBs ever used by Respondents even if there was no specific evidence those PCBs were released.

As just described, EPA's method for calculating the volumes of PCBs potentially released by the Respondents used the very conservative presumption that 100% of the PCBs in their transformers and capacitors were released. S/P has alleged that the Respondents also used PCBs in other fluids, oils and waxes. Although there is no proof of these other PCB uses by Respondents, EPA's calculation indicates that even if Respondents each released five times the amount of PCBs EPA attributed to them, they would still be **collectively** below EPA's typical 1% cut-off for a *de minimis* finding. EPA's estimates in Sections V.B.4.c.ii.(3) and (4) above, indicate the Respondents collectively contributed 0.22% of the PCBs to the Anniston PCB Site. Even a contribution five times the Respondents' collective 0.22% is near EPA's average 1% *de minimis* level. Thus, EPA's determination was designed to accommodate a considerable margin of error. Additionally, the Agreement contains a re-opener that allows EPA to reconsider its *de minimis* determination should new evidence indicate that the Respondents are not *de minimis*. S/P may present such information at any time to EPA, and EPA in its sole non-reviewable discretion, can revoke its *de minimis* determination and pursue the Respondents for additional response actions or costs.

(6) Equitable Factors

Finally, since S/P's Comments repeatedly raise the issue of fairness with respect to the Agreement, EPA must point out that any general analysis of the fairness issue must consider equitable factors such as fault and culpability. Monsanto manufactured all of the PCBs that the Respondents ever used. Monsanto's own internal documents show a clear pattern of corporate-decision making aimed at maximizing profits from PCB sales long

after the company knew of the risks associated with PCBs. See Exhibit 87.[62] Indeed, S/P was found liable for the tort of "Outrage" by a jury for their conduct in releasing PCBs from the Monsanto PCB plant. See Exhibit 12. In Soti v. Lowe's Home Centers, Inc., the Supreme Court of Alabama explained that to be liable for the tort of Outrage, the conduct must be "so outrageous in character and so extreme in degree as to go beyond all possible bounds of decency, and to be regarded as atrocious and utterly intolerable in a civilized society." 906 So.2d 916, 919 (Ala. 2005).

Monsanto corporate documents even show that the company attempted to cover up the risks associated with PCBs from its own customers. What follows are but a few examples of Monsanto's strategy to cover up the risks of PCBs from its customers. In 1956, the United States Navy conducted tests on the toxicity of Pydraul, a hydraulic fluid produced by Monsanto that contained PCBs. The Navy's testing found the material too toxic for use in its vessels. Despite the Navy's testing, Monsanto internal documents indicate that the company had a clear strategy to keep marketing the product to other customers because Monsanto's own information about Pydraul, "*. . .is generally enough to satisfy non-military customers.*" See Exhibit 87. Another Monsanto document dated December 5, 1958, states:

> *It is our desire to comply with the necessary regulations, but to comply with the minimum and not to give any unnecessary information which could very well damage our sales position in the synthetic hydraulic fluid field.* Id.

Further a February 16, 1970, Monsanto document states:

> *We can't afford to lose one dollar of business. Our attitude in discussing this subject [PCB contamination] with our customers will be the deciding factor in our success or failure in retaining all our present business.* Id.

In 1969, Monsanto in light of increased public concern regarding PCBs formed an Aroclor Ad Hoc Committee whose first priority was to recommend corporate actions that would *"protect continued sales and profits of Aroclors."* On October 2, 1969, the Committee reported that:

> *As the alarm concerning the contamination of the environment grows it is*

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[62] This paper, entitled, Monsanto Knew About PCB Toxicity For Decades, Chemical Industry Archives, Environmental Working Group, summarizes related Monsanto historic documents. In addition, the Environmental Working Group's website, at www.chemicalindustryarchives.org., contains an archive of hundreds of historic Monsanto documents. Since the paper provides excerpts of relevant Monsanto documents, for the ease of the reader EPA cites to the paper generally and not directly to each separate specific Monsanto document.

almost certain that a number of our customers or their products will be incriminated. The company could be considered derelict, morally if not legally, if it fails to notify ***all*** *customers of the potential implication.* Id. (emphasis added).

Yet when Monsanto finally began to disseminate any information about the risks of PCBs, that information was limited in nature and transmitted to a narrow audience. For example, in a February 18, 1970, form letter sent to transformer and capacitor manufacturers, Monsanto stated:

Since the dielectric fluid contained in this equipment is only an incidental part of the over-all unit manufactured by you, we are not notifying the purchasers of such equipment of the potential environmental contamination problem described in this letter. We do recommend, however, that you notify such equipment users of this problem. See Exhibit 88.

Another striking example of Monsanto's corporate thinking regarding their PCB pollution is found in a 1972 document, stamped "Company Confidential." In the document, Monsanto management authorized its staff to apply to EPA for a grant to study ways to remove PCBs from streams:

. . . provided that these reports [supporting the grant application] are screened by a qualified individual to insure that no statements are transmitted to EPA which might prove incriminating. For example, we would not want to document concentrations of PCB's [sic] in our plant discharge, pounds of product lost to the river over some period of time, etc. If such a screening can be completed and any potentially damaging statements removed or revised, we see no reason why [not to apply]. . . . See Exhibit 89.

Now, decades after Monsanto manufactured the PCBs and failed to disclose the environmental and health risks associated with PCBs to EPA, the public, and their own customers, S/P stands in opposition to a cleanup Agreement because S/P wants to sue its former customers over PCB cleanup costs. While S/P cannot be held entirely responsible for the sloppy operations of their customers, they certainly do not have clean hands with regard to their customers' widespread use of PCBs.

5. **S/P Comment**: *That Monsanto has no CERCLA liability for lead in Anniston.*

Response: S/P Are Potentially Responsible Parties For Lead Contamination

S/P comments that the Agreement wrongfully characterizes them as responsible parties for lead contamination in Anniston. EPA disagrees. EPA has completed the first phase of its investigation into whether S/P is liable for the Anniston Lead Site and has determined that S/P is a potentially responsible party under CERCLA because Monsanto released lead into the environment as a result of its operations. After reviewing Monsanto process documents, EPA believes that Monsanto released lead into the environment through the "lead pot process" used to produce biphenyls. Monsanto also released lead through other industrial processes, including through its ferro-alloy production process. EPA has not yet determined the full extent of Monsanto's lead releases but has determined there is sufficient evidence to identify S/P as potentially responsible parties for lead contamination at the Anniston Lead Site.

For decades, from 1928 until 1964, Monsanto used hundreds of tons of molten lead to make biphenyls for its PCBs, in a process called the "lead pot process." The lead pot process involved passing pre-heated benzol vapors through a bath of molten lead to produce biphenyl. See Exhibit 15, pg. 4. In 1950, Monsanto had 34 pots containing roughly 150,000 pounds of molten lead. EPA's National Enforcement Investigation Center (NEIC) analyzed this process and determined that the lead pot process released fugitive lead air emissions from the daily operation of the conversion units in the lead pot process and from maintenance of the conversion units for cleaning and repairs. Lead was discharged into the environment because the building housing the lead pot process was well ventilated to prevent fires. The east side of the building had no wall and was completely open, and the roof was high and contained good ventilators. See Exhibit 28, pg. 20.

The amount of lead potentially released during the lead pot process was significant. One commentor who submitted favorable technical comments to the Agreement on behalf of the Respondents, estimated Monsanto's lead losses to the environment from its lead pot process to be as much as 258.8 tons. These comments were supported by technical materials and witness testimony regarding Monsanto lead releases. According to Monsanto's production costs standards, 0.2 lbs. of lead was lost for every 100 lbs. of biphenyl produced, meaning over 800,000 lbs. of lead was lost during the production of biphenyl using the lead pot process. See Exhibit 90. Where did this lead go? Monsanto's own documents, cited below, at least partially answer this question, and

clearly show that lead was released into the environment through the daily operation of the lead pot process and during the maintenance on the conversion units for cleaning and repairs.

- "There is no point in trying to detect lead in the stack gases because there is always some lead lying about in the furnaces." See Exhibit 28, pg. 23.

- "Lead is known to escape sometimes through the cover joints on the pots at Anniston." Id.

- "It is not at all unusual to have escaping vapors burning round the cover of the convertor pot (especially now some of the convertors are being run at over 20 psi)." Id. at pg. 17.

Monsanto's documents also show that lead was released during the regular maintenance of the lead pots:

- "We are warned that lead vapours may be evolved during the burning out of lead traps and carbon traps." Id. at pg. 16.

- In 1950, the convertor pots had to be overhauled every five to nine weeks which required first emptying the pots. Id. at pg. 41. The lead in the pots was, of course, still molten when the lead pots were emptied, resulting in lead vapor releases. Id. at pg. 39.

S/P has argued to EPA that the lead it utilized was used in a closed loop process where it was impossible for any lead to escape into the environment. However, Monsanto's own documents indicate that lead was lost in the process and needed to be replaced periodically. Other Monsanto documents and witnesses also indicate that the lost lead was released into the Anniston environment through air emissions, water effluent, and by dumping of lead wastes, such as drosses, into the Monsanto open dumps where they were subject to further migration through leaching, wind-blown dust, and stormwater runoff. See Respondents' Comments, Exhibits 7 and 8.

Monsanto also released thousands of pounds of lead through its ferro-alloy production, a process which involves foundry type operations. From 1917 to at least 1922, the Monsanto plant produced ferro-manganese, ferro-silicon, ferro-phosphorous and silico-manganese. See Exhibit 8, pg. 8. From 1923 to at least 1935 the plant produced ferro-phosphorous. Id. This ferro-alloy production caused so much pollution that it triggered eight lawsuits in 1919 (novel for that time) that claimed that smoke,

gases, dust and soot from the ferro-alloy plant made living conditions unbearable and damaged the plaintiffs' household effects and gardens. See Exhibit 91.

Lead is a naturally occurring element in raw ores, such as the manganese used in the ferro-alloy process, and EPA has established emission factors for lead released in ferro-alloy production. Based on these emission factors and the volume of Monsanto's ferro-alloy production, among other things, EPA's National Enforcement Investigations Center (NEIC) was able to estimate the amount of lead released from Monsanto's ferro-alloy production. NEIC estimated that Monsanto released at least 12,700 lbs. of lead during its ferro-alloy production, but is more likely to have released between 17,000 and 35,000 lbs. See Exhibit 8, pg. 11.

Monsanto is also likely to have released lead during shipping and processing of lead as a raw material for use in its PCB manufacturing process. Monsanto received hundreds of tons of lead by rail car for use as part of the PCB manufacturing process; the loading and unloading operations for the lead would likely cause soil contamination, wind-blown dust, and stormwater run-off releases of lead.

Additionally, Monsanto's own documents indicate that lead was a component of their various products and was a part of the waste streams associated with those products. For example, lead was found in the Monsanto plant's wastewater effluent which was released by the hundreds of millions of pounds into the environment from the Anniston plant. See Exhibit 92 and Exhibit 14. Lead also formed a portion of various products Monsanto manufactured; hence, the waste streams from these products were also likely contaminated with lead. See Exhibit 93. Monsanto documents also show that Monsanto received permission from ADEM to burn lead containing Therminol as a fuel source at its Anniston plant. See Exhibit 94.

Finally, EPA also disagrees with S/P's argument that the pattern of lead distribution found in Anniston excludes the Monsanto plant as a source of lead contamination. S/P have undertaken millions of dollars of environmental cleanup at their Anniston plant over the past few decades, including soil removal and capping. Presently existing levels of soil lead contamination at the plant are not necessarily reflective of past soil lead contamination levels. Furthermore, S/P ignore the impact that the urban Anniston area has on the distribution pattern of air emissions through buildings and structures which create eddies and air currents. See Exhibit 23. S/P also fail to consider other routine human activities, such as landscaping and construction, as factors which could also account for any claimed patch-like and sporadic pattern. Additionally, lead is present in the environment naturally and as the result of lead based paint and automobile emissions. Along with the placement of foundry fill, all of these factors impact the

expected pattern of lead contamination found in Anniston. Id. Therefore, S/P's argument that they can not be responsible for any lead pollution in Anniston because lead is not uniformly distributed in every yard is overly simplistic and unreliable.

VI. United States' Response to S/P Legal Comments on the Agreement

A. Introduction

S/P has submitted, as Exhibit C to the S/P Comments, a document entitled "Legal Position on the Lead Site AOC" (S/P Legal Position) which sets forth their legal arguments against the Agreement. To some extent, the legal arguments in the S/P Legal Position are addressed throughout EPA's Response to Public Comments. However, because S/P has submitted a separate document containing its legal arguments, this Section of EPA's Response to Public Comments contains a brief, point-by-point analysis of the legal arguments made by S/P. The United States has previously written several detailed legal briefs and statements of position refuting the various legal arguments raised by S/P in their Legal Comments. Those briefs and statements were all filed in the District Court for the Northern District of Alabama where the PCD was entered. Those documents are attached hereto as Exhibit 10 and are incorporated by reference into this legal section.

B. Overview of S/P Legal Comments

The S/P Legal Position sets forth six legal arguments in opposition to the Agreement. S/P allege that:

Argument 1: The contribution protection provisions of the Agreement violate the Partial Consent Decree ("PCD") between the United States and S/P;

EPA Response: Under the PCD, the United States reserved all of its rights under CERCLA, and S/Ps' rights under CERCLA and the PCD are subordinate to the rights of the United States.

Argument 2: "Courts" have found that an AOC for removal is not an "administrative settlement" under CERCLA and, therefore, does not give the United States authority to use an AOC to extinguish contribution rights;

EPA Response: The Agreement is an administrative settlement under CERCLA that provides contribution protection pursuant to CERCLA.

Argument 3: CERCLA does not give the United States authority to use an AOC to extinguish S/P's contribution rights at one site in exchange for the Foundries' agreement to remediate a completely separate site;

EPA Response: The Agreement is a settlement which addresses both the Anniston PCB Site and the Anniston Lead Site.

Argument 4: The United States' decision to provide a *de minimis* settlement to the Foundries is not supported by the evidence;

EPA Response: EPA followed the express language of CERCLA and its Guidance documents in determining the Respondents were entitled to a *de minimis* settlement for the Anniston PCB Site.

Argument 5: The assignment of PRP status to S/P on the Anniston Lead Site in the "Findings of Fact" section of the AOC is inappropriate;

EPA Response: S/P are PRPs for Lead Contamination at the Anniston Lead Site.

Argument 6: An administrative agreement that would cut off S/P's contribution rights without a hearing would result in an unconstitutional taking under the 5th Amendment, triggering the application of 42 U.S.C. § 9657;

EPA Response: The entry into the Agreement between the United States and the Respondents does not constitute a takings under the Fifth Amendment to the United States Constitution.

As will be shown below, each of the arguments asserted by S/P is flawed and without legal merit. EPA responds to each of S/P's arguments in the order presented above.

C. The United States Response To S/P Legal Comments

1. Under the PCD, the United States reserved all of its rights under CERCLA, and S/P's contribution rights under CERCLA and the PCD are subordinate to the rights of the United States.

S/P mischaracterize the PCD in arguing that the Agreement violates the PCD. S/P point to provisions of the PCD which preserve their right to pursue contribution from other parties, and argue that these provisions prohibit the United States from entering into any settlement which confers contribution protection on those parties. S/P's position could not be more wrong. First, S/P ignore provisions of the PCD which specifically preserve the United States' superior right to enter into settlements with other parties and

to take action which could impact S/P's contribution case. Second, the "reservation of rights" provisions of the PCD that S/P rely upon say nothing about nullifying the United States' authority to settle with other parties. The provisions simply do not say what S/P claim.

The provisions at issue are boilerplate "reservation of rights" provisions, provisions of a type which are contained in every CERCLA settlement entered by the United States and which are designed to maintain the status quo as to each parties' rights under CERCLA. S/P take these typical settlement provisions and mischaracterize them as unprecedented provisions which confer extraordinary contribution rights on S/P and strip the United States and EPA of their authority to settle with other parties.

The United States and EPA Reserved Their Statutory Rights Under the PCD

S/P ignore specific provisions of the PCD which plainly state that the United States and EPA reserved all of their rights. For example, Paragraph 32 of the PCD is directly on point and controlling on the disputed issue. Paragraph 32 states:

> *"Notwithstanding any other provision of this Consent Decree, the RI/FS Agreement, the NTC Removal Agreement and/or the Removal Order, the United States retains all authority and reserves all rights to take any and all response actions authorized by law."* (Emphasis added)[63]

Thus, Paragraph 32 unequivocally preserves the United States' statutory rights. Further, as explained below, Congress expressly made the United States' rights superior to S/P's contribution rights. Yet, without any supporting language in the PCD, S/P argues that the United States bargained away these superior rights.

There are other provisions in the PCD and its attachments that similarly establish that the United States and EPA reserved their statutory rights to take actions which may impact Defendants' contribution rights.[64] These provisions of the PCD and the

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[63]"Response action" is defined by CERCLA Section 101 to include all enforcement actions such as the Agreement.

[64]Paragraph 34 of the PCD states: *"EPA reserves the right to conduct all or a portion of the RI/FS Work, the NTC Removal Work, and the Removal Order Work itself at any point, to seek reimbursement from Defendants, and to seek any other appropriate relief."* (Emphasis added)

Paragraph 38 of the PCD states: *"Each of the Parties expressly reserves any and all rights (including, but not limited to, any right of contribution) . . . which each Party may have with respect to any matter, transaction, or occurrence relating in any way to the Site and/or the Anniston Lead Site against any person not a Party hereto."*

attachments make it clear that the United States and EPA did not "bargain away" their superior statutory rights under CERCLA as S/P claim.[65]

The Provisions of the PCD that S/P Rely on do not say What S/P Claims

Despite the clear "Notwithstanding any other provisions of the PCD . . ." language of Paragraph 32, S/P point to four other provisions in the PCD to support their position. The first two provisions are Paragraphs 38 and 42 of the PCD. As already set out above, Paragraph 38, entitled "Reservations," states in pertinent part:

> *Each of the Parties expressly reserves any and all rights (including, but not limited to, any right of contribution) . . . which each Party may have with respect to any matter, transaction, or occurrence relating in any way to the Site and/or the Anniston Lead Site against any person not a Party hereto.* (Emphasis added)

Paragraph 42, entitled "Disclaimer", states in pertinent part:

> *Defendants retain their rights to assert claims against other potentially responsible parties at the Site.*

These provisions, by their express language, "reserve" or "retain" existing rights. They do not contain language expanding S/P's rights or creating new rights beyond those

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(Emphasis added)

Section XII of the Non-Time Critical Removal Agreement (Appendix G to the PCD) states: *"Except as otherwise specifically provided in this NTC Removal Agreement, nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances. . . from the Site. Further, nothing herein shall prevent EPA . . . from taking other legal or equitable action as it deems appropriate and necessary. . ."* (Emphasis added)

Section XV. of the Non-Time Critical Removal Agreement states: *"Nothing in this NTC Removal Agreement precludes the United States or the Defendants from asserting any claims, causes of action or demands against any persons not parties to this NTC Removal Agreement for indemnification, contribution, or cost recovery."* (Emphasis added) Similarly, the Time Critical Removal Agreement (Appendix C to the PCD) contains similar reservations of rights enabling the United States to take whatever actions it deems necessary to protect public health and the environment.

[65]To the extent Judge Clemon interpreted the PCD as limiting the United States ability to enter into settlements which may impact S/P's contribution rights, Judge Clemon erred. At the June 1, 2005, hearing before Judge Clemon and on several other occasions, the United States proposed seeking certification of the issue to the 11th Circuit Court of Appeals. S/P has refused. If Judge Clemon issues a final order which has the effect of enjoining the United States from proceeding with the Agreement or if Judge Clemon allows S/P to actually "set aside their obligation under the PCD", the United States will likely appeal.

rights already existing under CERCLA. EPA acknowledges that S/P reserved, and did not waive, whatever contribution rights they might have. However, those contribution rights are defined and limited by Section 113 of CERCLA. By CERCLA's explicit terms, the scope of those rights are subordinate to the United States' superior rights in Section 113(f)(3)(C), and limited by other settling parties' rights to contribution protection in Sections 113(f)(2) and 122.[66]

Further, there are simply no words in either Paragraph 38 or 42 that remotely purport to limit or waive the government's statutory authorities. Both paragraphs are statements about rights the parties retained, not rights they waived or gained. These provisions provide no support for S/P's position that the United States "bargained away" its statutory authority or that it granted S/P new unlimited contribution rights beyond those in the statute.

The third provision of the PCD relied upon by S/P is in the last paragraph of Section I. of the Non-time Critical Removal Agreement (Appendix G to the Consent Decree) which states:

> *Defendants and EPA acknowledge that residential properties containing lead in excess of 400ppm are also part of the Anniston Lead Site and that EPA is in the process of identifying responsible parties (PRPs) under CERCLA in connection with the Anniston Lead Site. If Defendants remove soil from any property having lead in excess of 400ppm from a residential property pursuant to this Agreement, the EPA acknowledges that Defendants may seek contribution for the costs of such removal from PRPs at the Anniston Lead Site and any other parties who may be liable.*
> (Emphasis added)

S/P's reliance on this paragraph as support for their challenge to the PCB *de minimis* portion of the Agreement is as equally misguided as their reliance on Paragraphs 38 and 42. Once again the words of the paragraph simply don't say what S/P claim they do. In their previous pleadings and in their Legal Comments, S/P deceptively only quote the clause in the second sentence which says EPA "acknowledges that Defendants may seek contribution." S/P, however, leave the rest of the paragraph unquoted because the earlier sentence makes it clear the paragraph is about lead, not PCBs. The provision says that if S/P clean up a residential yard containing lead over the 400ppm cleanup standard,

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[66]Section 113(f)(2) in relevant part states "A person who has resolved its liability to the United States or a State in an administrative or judicially approved settlement shall not be liable for claims for contribution regarding matters addressed in the settlement." 42 U.S.C. §9613(f)(2). Nearly identical language is included in Section 122.

EPA acknowledges that there may be other lead PRPs and S/P may have a contribution right against them. It says absolutely nothing about PCB contribution rights. S/P oppose the PCB *de minimis* portion of the Agreement because they claim the PCD guarantees them a right to seek contribution for PCBs - yet in support they rely on a paragraph that is **solely** about lead.

S/P's reliance on this paragraph is even more deceptive because in reality, under the PCD, S/P does not even clean up residential yards contaminated with lead above the cleanup standard of 400 ppm unless the same part of a property is also contaminated with PCBs over the cleanup standard. If S/P sample a residential property and find a part or parts of a property that contain lead above the cleanup standard, but do not contain PCBs above the cleanup standard, S/P turns those parts of the property over to EPA for cleanup. As a result, S/P has cleaned up very few yards that have contained lead over 400ppm. Therefore, this provision has applicability to only a few **lead** contaminated yards.[67]

Even for the few lead yards it applies to, it merely "acknowledges" that S/P "may seek contribution." Like the other provisions relied upon by S/P, this language only acknowledges S/P's existing limited CERCLA rights; it does not expand S/P's existing contribution rights or create new ones. S/P make a huge unsupported leap from the actual words in the provision - which relate solely to a few lead contaminated properties - to claim that it confers on them extraordinary and unlimited PCB contribution rights beyond those in CERCLA, and that it also nullifies EPA's statutory authority to settle with other parties.

Finally, this paragraph was put into the PCD because at that time, EPA had not yet completed its investigation for the Anniston Lead Site. If anything, this paragraph proves that EPA made it clear to S/P at the time the PCD was negotiated, that EPA was in the process of identifying responsible parties (PRPs) under CERCLA in connection with the Anniston Lead Site. Obviously, EPA was investigating other responsible parties because it intended to seek a cleanup settlement with them. The actual words of the first sentence of the paragraph state: "Defendants . . .acknowledge . . .EPA is in the process of identifying responsible parties (PRPs) under CERCLA in connection with the Anniston Lead Site." EPA certainly would not have bothered undertaking a two year investigation of potential lead PRPs if it had bargained away its right to pursue those parties.

The fourth provision of the PCD relied upon by S/P is a provision in the Statement of Work (Appendix B to the PCD), which provides for "Use of the RI [Remedial

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[67]The number of yards covered by this paragraph is under ten. If these yards were really what S/P were concerned about, this whole matter would likely have settled long ago because of the minimal cleanup costs involved.

Investigation] to identify any other Potentially Responsible Parties that may be involved." S/P does not explain how this generic statement about using the RI to identify additional PRPs means that the United States bargained away its statutory authorities and granted extraordinary contribution rights to S/P. Like the other provisions relied upon by S/P, the provision simply does not lend itself to the interpretation urged by S/P. In fact, similar to the last paragraph discussed above (Section I. of the Non-time Critical Removal Agreement), the actual language of this paragraph proves only that EPA always intended to identify (and pursue and settle with) additional PRPs at the Anniston PCB Site. Identifying additional PRPs and forcing them to contribute their fair share to a cleanup is standard operating procedure for the Agency.

In one sense, even S/P's strained arguments regarding these four provisions of the PCD are irrelevant because Paragraph 32 of the PCD provides that "Notwithstanding" any of those provisions, the United States protected its superior statutory rights to take all response actions authorized by law.

The weakness of S/P's position is even more apparent when the genesis of the "reservation of rights" language in Paragraphs 38 and 42 of the PCD is considered. EPA, and not S/P, drafted the reservation language relied upon by S/P. That language is EPA model settlement language that has been used in hundreds of settlements over decades.[68] The provisions are model reservation of rights provisions that apply equally to both sides. It is unreasonable to read a waiver of rights by either party in the language. Yet, in paragraph 38, S/P is actually arguing that a provision that explicitly reserves the United States' rights under CERCLA instead should be read to be a waiver of the United States' rights under CERCLA. That interpretation is nonsense. Is S/P's logic equally applicable in reverse? Since the United States reserved **its** rights in these provisions, does that mean that S/P waived theirs? No, it does not. Neither party gave up any rights in these provisions; rather, they both preserved their statutory rights. The CERCLA rights S/P

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[68]The language was first made public in the Federal Register in 1991. Despite the model language being used for decades in thousands of EPA settlements across the country, no Court has ever issued a ruling interpreting the provisions in the way S/P suggest. Recently, EPA, as a direct response to S/P's arguments to Judge Clemon, modified its model language to attempt to prevent any new signatories to EPA settlements from making similar spurious arguments in the future. This should not be interpreted as an admission by EPA regarding its past model language. EPA firmly believes that its previous model language, including Paragraph 32, was absolutely clear regarding the issues in dispute and intends to vigorously defend that language against all challenges. Rather, the new model language is merely a sensible way for the Agency to try to avoid more frivolous litigation. The new model language retains Paragraph 32, but adds in a specific statement that any right to contribution that a settling party reserves under an EPA settlement is expressly subordinate to EPA's right to pursue any other party. This language mirrors CERCLA. EPA is realistic enough however, to know that no language, no matter how clearly drafted, can prevent a party from raising a frivolous argument. One need look no further than this very matter to prove that point given how S/P have completely ignored the plain "Notwithstanding" language of Paragraph 32.

reserved in these provisions are subordinate to the CERCLA rights reserved by the United States.

The rights that each Party reserved are provided for in Section 113(f) of CERCLA. S/P's contribution rights are established under Section 113(f)(3)(B) ("A person who has resolved its liability to the United States or a State for some or all of a response action or for some or all of the costs of such action in an administrative or judicially approved settlement may seek contribution from any person who is not a party to a settlement referred to in paragraph (2).") Those rights are limited under Section 113(f)(2) ("A person who has resolved its liability to the United States in an administrative or judicially approved settlement shall not be liable for claims for contribution regarding matters addressed in the settlement.")[69]

The superiority of the United States authority to enter into settlements which confer contribution protection and thereby extinguish another parties contribution rights is clear from the language of Section 113(f)(3), which provides:

> (3) **Persons not a party to settlement**
>
> (**A**) If the United States or a State has obtained less than complete relief from a person who has resolved its liability to the United States or the State in an administrative or judicially approved settlement, the United States or the State may bring an action against any person who has not so resolved its liability.
>
> (**B**) A person who has resolved its liability to the United States or a State for some or all of a response action or for some or all of the costs of such action in an administrative or judicially approved settlement may seek contribution from any person who is not a party to a settlement referred to in paragraph (2).
>
> (**C**) In any action under this paragraph, the rights of any person who has resolved its liability to the United States or a State shall be subordinate to the rights of the United States or the State. Any contribution action brought under this paragraph shall be governed by federal law. (emphasis added)

[69]It should be noted that the contribution protection conferred on parties who settle with the United States is not something that the United States' can refuse to provide in particular settlements; rather, contribution protection is automatically conferred, pursuant to Section 113(f)(2) of CERCLA, on settling parties with respect to "matters addressed" in a settlement. Thus, S/P's argument that the United States cannot provide contribution protection is really an argument that the United States cannot enter into any settlements relating to the Anniston PCB Site. To read boilerplate reservation of rights provisions of a settlement document as working an unprecedented limitation on the United States authority to take action to protect public health and the environment is wrong.

Section 113(f)(3)(A) grants the United States the authority to bring an action against other responsible parties, and while Section 113(f)(3)(B) grants parties who have resolved some or all of their liability to the United States the right to seek contribution. In Section 113(f)(3)(C), Congress clearly and unequivocally gave the United States superior rights over previous settling parties. Thus, under CERCLA and under the PCD, pursuant to which both Parties "reserved" rights already existing under CERCLA, S/P's contribution rights are made subordinate to the United States' authority to settle with other parties. Case law supports this clear reading of CERCLA.

In United States v. Bay Area Battery, 895 F. Supp. 1524, (N.D. Fla. 1995), the court addressed the exact same issue. In Bay Area Battery, like here, the United States entered into a settlement with parties who then brought a contribution action against other parties. Also just like here, in Bay Area Battery the United States negotiated a settlement with the defendants in the contribution action who, as part of the settlement, were provided contribution protection by CERCLA. As here, the previous settlors in Bay Area Battery complained that the later settlement with the United States extinguished their contribution lawsuit against the later settlors.

In deciding who had superior rights between the Government and the private parties who had previously settled with the Government and reserved their contribution rights, the court stated:

> *[W]hen, as in this case, the Government and private parties are pursuing the same PRPs for reimbursement, the rights of any person who has resolved its liability to the United States . . . **shall** be subordinate to the rights of the United States." 42 U.S.C. § 9613(f)(3)(C). Thus, CERCLA gives the Government's claim clear statutory priority over the Group's claim on these settlors' funds.*
> Id. at 1532 (emphasis added).

The court went on to say "[I]ndeed, CERCLA permits the Government to extinguish the Group's claim altogether." Id. at 1532.

Other cases have held similarly. See United States v. Browning-Ferris Industries, 19 Chem. Waste Litig. Rep. 436 (M.D. La. 1989). In Browning-Ferris, like here, a party that had previously signed a consent decree with the United States complained that a subsequent settlement between the United States and other responsible parties would cut off its rights to sue in contribution. The court held that Section 113(f)(3)(C) of CERCLA subordinates the rights of all others to the rights of the United States. Id. And, in Alcan Aluminum, Inc. v. AT & T Technologies, Inc., 25 F.3d 1174, 1184, fn. 14 (3rd Cir. 1994), the court held that Section 113(f)(3)(C) of CERCLA subordinates a settlor's contribution

right to the government's right to recover response costs . . . ." The court in Alcan further stated that CERCLA allows the government to immunize a late settlor from an earlier settlor's contribution suit. Id. at 1186.

S/P argue that it is not fair that their contribution rights are impacted by the United States' settlement with other parties. Notwithstanding S/P's sense of unfairness, Congress clearly expressed in Section 113(f) of CERCLA that their contribution rights are subordinate to the interests of the United States. As the court stated in Bay Area Battery:

> *. . . any agreement that cuts off the Group's right to recover from these PRPs (potentially responsible parties) is unfair from their perspective. Unfortunately for the Group, CERCLA 'is not a legislative scheme which places a high priority on fairness to generators of hazardous waste. . . .* Bay Area Battery, 895 F.Supp. 1524 *citing* Rohm & Haas, 721 F. Supp. at 686.

S/P rely on Judge Clemon's finding that S/P reserved their contribution rights in the PCD to claim that Judge Clemon's order somehow preempts both the United States' similarly reserved rights in the PCD, which were reserved "notwithstanding" any other provisions in the PCD, and CERCLA's express provision that S/P's reserved rights are subordinate to the United States' reserved rights. On that basis, S/P asked Judge Clemon to enjoin the United States from entering into the Agreement. Significantly, however, Judge Clemon did not grant S/P's request that the Court enjoin the United States and instead invited S/P to file a motion seeking to have their obligations under the PCD suspended. Over six months have elapsed and S/P have not filed a motion seeking to have their obligations suspended in accordance with the Court's June 30, 2005, Order. Arguably, Judge Clemon did not enjoin the United States because he recognized the United States superior right to enter into settlements with other parties.

Despite his denial of S/P's request for an injunction, Judge Clemon did find that EPA's efforts to proceed with the Agreement impermissibly infringed upon S/P's reserved contribution rights. However, in his June 30, 2005, Order, Judge Clemon did not explain why EPA's actions were impermissible in light of Paragraph 32 (and other similar provisions) of the PCD which also preserved the United States' superior right to settle with other parties.[70] Judge Clemon did not follow the statute, case law, or the

[70]The Court did say that S/P would not have entered into the PCD had they known that the United States could extinguish their contribution rights. However, other than counsel saying so in response to a question from the Court, there is no evidence to support such a finding. Certainly, a statement from counsel is not evidence. Furthermore, the

express provisions of the PCD.

S/P also contend that since Section 113(f)(3)(C) refers to the word "action"in specifying the context in which contribution rights are subordinate to the United States' rights, that such subordination is limited to situations where the United States has sued the same party that a PRP has sued. S/P's interpretation of Section 113(f)(3)(C) of CERCLA, 42 U.S.C. § 9613(f)(3)(C) is wrong. Section 113(f)(3)(C) refers to "any action under this paragraph" and the paragraph refers to both judicial **and administrative** settlements. See sections 113(f)(3)(A) and (B). Had Congress meant the term "action" to refer only to judicial actions, it would not have included administrative settlements as well. CERCLA includes many references to types of actions other than judicial actions, including response actions and administrative actions, and there is no reason to believe that Congress intended to limit the United States' superior rights to the judicial context. It should also be noted that Section 113(f)(1) does use the term "civil action" to refer to lawsuits. If Congress intended "any action" to mean only a lawsuit, it could have used the term "civil action" it used elsewhere in the same Section.

Indeed, Congress clearly designed Section 113(f) to encourage EPA to enter into settlements. The legislative history and case law are clear on this point. S/P's argument that the subordination clause of 113(f)(3)(C) is limited to actual lawsuits and not settlements turns the clear purpose of the section on its head because it would have the bizarre result of placing EPA in a worse legal position if it settled with a party than if it sued the same party. That simply makes no sense, especially since the section was designed to encourage settlement.

In conclusion, the Agreement does not violate the PCD. As shown above, the United States' position is supported by the express language of the PCD itself, Section 113(f)(3)(C) of CERCLA, and case authority. There is no legal authority which supports S/P's position.

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attorney who made that statement was not present at, nor did he participate in any of, the negotiations. In fact, the attorney who negotiated the PCD, Allan Topol, is a nationally recognized Superfund expert who was clearly knowledgeable about the United States ability to extinguish a settlor's contribution rights. In his treatise on Superfund Law and Procedure, Mr. Topol referred to case authority which held that the United States had the authority to extinguish the contribution rights of earlier settlors. See "Superfund Law and Procedure," Topol and Snow (1992) §7.15 at 174.

2. The Agreement is an Administrative Settlement under CERCLA that Provides Contribution Protection Pursuant to CERCLA

S/P cite Pharmacia Corp. v. Clayton Chemical Aquisition, LLC., 382 F. Supp. 2d 1079 (S.D. Ill. 2005), a decision that was adverse to them, for the proposition that "courts" have held that an administrative removal "Order on Consent" was not a settlement agreement which provides for contribution protection. First, it is misleading for S/P to say that more than one court has reached such a decision, as the Pharmacia court is the only one to so hold. Second, that decision is not binding on the Northern District of Alabama. Third, S/P have stated in filed pleadings that the decision in the Pharmacia v. Clayton case is wrong and that the agreement in that case represented a settlement agreement under CERCLA. Specifically, S/P stated that the Pharmacia case is wrong and Pharmacia is seeking to have it reversed.[71] In other words, S/P are relying on a ruling that they are seeking to have overturned solely because it suits their pecuniary interests in this matter to do so. They cannot be right on both accounts. Finally, and most importantly, even assuming the Pharmacia decision was correctly decided, the facts in this case are not the same as those in Pharmacia.

EPA agrees with S/P that Pharmacia was wrongly decided. Any CERCLA administrative order on consent is a settlement by its very nature. In addition, the specific concerns identified by the Pharmacia court are not present here. In Pharmacia, the district court relied on the facts that the administrative order was not captioned as having been entered into pursuant to Section 122 of CERCLA and did not contain the word "settlement." Rather, the court held the agreement in that case was an order under Section 106 of CERCLA and not a settlement under Section 122. Id. at 1085. The Agreement here is distinguishable from the AOC considered by the Pharmacia court. The Agreement is titled "Section 122 Administrative Agreement and Order on Consent for Removal Action" and is being "entered into under the authority vested in the President of the United States by Sections 104, 106(a), 107 **and 122** of the Comprehensive Environmental Response, Compensation, and Liability Act. . . ." See Paragraph 2 of the Agreement. Following the simple logic used by the court in Pharmacia, that factual difference alone should be enough to distinguish the AOC at issue in Pharmacia from the Agreement here.

The Pharmacia court also noted that "nowhere in the twenty-five pages of the

[71]S/P have filed a Motion to Reconsider the Court's ruling in Pharmacia, arguing that the AOC is "settlement" conferring contribution rights and protection pursuant to Section 113 of CERCLA. See Civil Action No. 02-428-MJR in the United States District Court for the Southern District of Illinois East St. Louis Division.

AOC is the word settlement or derivation therefrom used." Id. at 1085. The Agreement, on the other hand, states that "this Agreement constitutes an administrative settlement for purposes of section 113(f) of CERCLA. . . ." See Paragraph 74 of Agreement. (Emphasis added) Thus, S/P's reliance on the Pharmacia case is 1) disingenuous given the fact they are on record arguing that the Pharmacia decision was "resolutely" wrong (a position with which EPA agrees), and 2) misplaced since the key facts relied upon by the Illinois district court in that case do not exist here.

The CERCLA statute states that a settling party is provided contribution protection through an administrative settlement. See Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2). The Agreement is clearly an administrative settlement conferring such protection. S/P have provided no authority, or even argument, regarding why this specific Agreement should not be considered a settlement agreement under Section 122 of CERCLA.

3. The Agreement is a settlement which addresses both the Anniston PCB Site and the Anniston Lead Site.

S/P comment that the United States ". . . cannot use an AOC to extinguish [S/P's] contribution rights at one site (the Anniston PCB Site), in exchange for the Foundries' agreement to remediate a completely separate site (the Anniston Lead Site)." This argument completely mischaracterizes the Agreement, which expressly resolves the Respondents' liability at both Sites and imposes obligations on the Respondents in connection with both Sites. Further, the Agreement is based on a determination, after investigation and public comment, that the amount of work to be performed by the Respondents at each Site under the Agreement represents a fair allocation given the amount of each contaminant they contributed to each Site.

Inexplicably, S/P state that the Agreement, which S/P mischaracterize as the Lead Site Agreement, does not require any work or payment relating to the Anniston PCB Site. However, that is contradicted by the clear terms of the Agreement.[72] Section VIII, the Work To Be Performed Section of the Agreement, sets forth obligations pertaining to PCBs at the Anniston PCB Site. In a manner similar to that required under the PCD, sampling under the Agreement will be conducted by dividing residential properties into distinct yards, such as front, back, and side yards, and then requiring an analysis to determine whether any of the distinct yards contains lead or PCBs above the action levels

[72]EPA has repeatedly explained the PCB obligations of Respondents under the Agreement to S/P, yet S/P continues to ignore the plain language of the Agreement on this point and still mischaracterizes the Agreement as only requiring incidental PCB cleanup.

of 1 ppm for PCBs and 400 ppm for lead. Pursuant to the Agreement, the Respondents are required to clean up an entire property in cases where sampling shows that only one part of a property is contaminated above the action level for lead and the other part, or parts, of the property are contaminated above the action level for PCBs but not above the action level for lead. In contrast, under the PCD, S/P is only obligated to clean up the parts of properties containing PCBs above the action level. Thus, there is a lack of symmetry on this point in the two settlements, and in this respect, the Respondents are clearly shouldering PCB cleanup obligations that are independent of their lead cleanup obligations under the Agreement. Further, the number of yards containing PCB contamination above PCB action levels that will be cleaned up is significant, and the cost of this PCB cleanup and the associated PCB sampling is also significant and reduce the potential obligations of S/P for PCB cleanup. Thus, S/P's claim that the Agreement "does not require any work or payment relating to the Anniston PCB Site" is false.

Despite S/P's strident claims to the contrary, there is nothing remarkable about EPA's decision to address two Superfund Sites in one settlement. Although EPA could have addressed the Respondents' liability at the Anniston Lead Site and their liability at the Anniston PCB Site in separate agreements, there is no legal requirement that EPA do so. Moreover, given the overlapping nature of the two Sites and the fact that the Respondents have liability under CERCLA for both lead and PCBs, it is a reasonable and more efficient use of EPA's resources to address the Respondents' liability for both Sites in one agreement.

In support of their argument that EPA cannot enter a settlement for one site and provide contribution protection for another site in the same settlement agreement, S/P cite to various cases in which contribution protection under settlements was held not to be as broad as claimed by the settlors who sought to invoke contribution protection provided for in the settlements in those cases. These cases are irrelevant because, as noted above, EPA is settling the Respondents' liability for two Sites, the Lead Site and PCB Site, in the Agreement and the Agreement places obligations on the Respondents for both Sites. S/P fundamentally mischaracterize the Agreement as a lead-only settlement. Since the Agreement in fact obligates Respondents to perform work at both Sites, S/P's arguments accordingly fail for each cited case. The Agreement can be easily distinguished from the types of settlements discussed in the cases cited by S/P. For example, Rumpke of Indiana, Inc. v. Cummins Engine Company, Inc., 107 F.3d 1235 (7th Cir. 1997), cited by S/P at page 13 of the S/P Legal Comments, involved two sites that were unrelated and ten miles apart, and the settlement upon which a party relied for contribution protection pertained only to one site. The Agreement, in contrast, clearly and expressly relates to two Sites which overlap.

In addition to claiming that absolutely no CERCLA contribution protection can be granted for the PCB Site in the Agreement, S/P also argue that the scope of the contribution protection in the Agreement is too broad. In their Legal Comments, S/P falsely claim similarities between the scope of contribution protection under the Agreement and under the settlement in American Special Risk Ins. Co. v. City of Centerline, 180 F. Supp. 2d 903 (E. D. Mich. 2001)(Centerline). However the two bases for denying contribution protection in Centerline are not present here. In Centerline, a settlement with the State of Michigan resolved the liability of various cities in connection with their roles as members of the South Macomb Disposal Association (SMDA), the owner/operator of the site at issue, a landfill. First, the court held that the contribution protection of the settlement did not extend to protect the cities from contribution actions based on their separate roles as generators of waste sent to the landfill. The court determined that this separate basis for liability of the cities was not intended to be within the scope of matters addressed in the settlement. This factual scenario has no relevance to the Agreement, in which the United States expressly settles with the Respondents for their roles as generators of PCB waste at the Anniston PCB Site, after an investigation into their relative contribution to such waste.

The second reason for the Centerline court's refusal to broadly interpret the scope of contribution protection was the lack of public comment on that settlement agreement. The court in Centerline stated:

> *some courts have intimated that broad contribution protection provisions should not be upheld when entered into under circumstances such as this, i.e., where the alleged agreement has been formulated under a process devoid of hearings or public comment.* Id. at 910. (emphasis added)

Obviously, that is not the case here. S/P were provided notice of the Agreement and are participating in the public comment process. In fact, S/P have had the proposed Agreement for months and have had numerous opportunities to discuss its terms with the United States. The United States, even before the public comment period had commenced, repeatedly invited S/P to provide any information they had that was relevant to the Agreement.[73] EPA entered into the Agreement only after careful consideration of voluminous records, including voluminous public comments submitted by S/P and others, and EPA specifically determined that the Agreement reflects a fair settlement of the

[73]Indeed, S/P participated in the negotiations for the Agreement. However, S/P voluntarily withdrew from the negotiations on November 17, 2004, when they sought the intervention of the court to stop the negotiations. After S/P filed their letter and initial brief with the Court, EPA received no further contact from S/P for 77 days, during which time EPA continued negotiations with Respondents toward the final version of the Agreement.

Respondents' liability for both the Anniston PCB Site and the Anniston Lead Site.

In their Legal Comments, S/P also rely on Transtech Industries, Inc. v. A & Z Septic Clean, 798 F. Supp. 1079 (D.N.J. 1992). S/P's reliance on Transtech is also misplaced. In Transtech, a party who settled with the United States sought to expand the contribution protection beyond the terms of the settlement. The matters addressed in the settlement between the defendant and the United States pertained only to costs incurred by the United States. Here, the matters addressed in the Agreement are broader, based upon EPA's analysis of the Respondents' contributions to the contamination at the Anniston Lead and Anniston PCB Sites. S/P seeks support from Transtech because the settlement at issue was held not to confer broad contribution protection. However, a review of Transtech shows that S/P simply ignore stark differences between the scope of the matters addressed under the Agreement with the Respondents and the Transtech settlement document. Obviously, if the Agreement with the Respondents were limited to recovery of EPA's past costs and the matters addressed were so defined, contribution protection would be similarly limited. That is simply not the case here. Rather, EPA has made a careful determination of the Respondents contribution of contamination to both the Anniston PCB Site and the Anniston Lead Site and negotiated a settlement document that fairly resolves the Respondents' liability for both Sites, subject to certain reservations and reopeners explained above.

S/P also argue that the Respondents should not be protected from contribution lawsuits brought by S/P because it would be unfair. In support of this argument they cite various cases where contribution protection provisions were interpreted narrowly or rejected in light of fairness concerns, including Akzo Coatings of America, Inc. v. American Renovating, 842 F. Supp. 267 (E.D. Mich. 1993); Kelly v. Wagner, 930 F. Supp. 293 (E.D. Mich. 1996); and Kelly v. Wagner, 930 F. Supp. 293 (E.D. Mich. 1996). Unfortunately for S/P, as set forth at length above, their fairness argument is not supported by the evidence. S/P fail to acknowledge that they generated hundreds of millions of pounds of PCBs and released tons of PCBs into the environment. In determining that the Respondents were *de minimis* contributors to the PCB contamination at the facility, EPA fully and carefully examined all available information of releases of PCBs by both S/P and the Respondents.

Furthermore, under the Agreement, should EPA later discover evidence that the Respondents are not *de minimis* contributors to the PCB contamination, EPA maintains the right to further pursue the Respondents for additional cleanup work and costs. In other words, should evidence be uncovered, or even presented by S/P, that reflects that the Respondents are not *de minimis* contributors of PCBs, the *de minimis* finding will be withdrawn, and EPA can proceed under CERCLA against the Respondents. At this time,

however, the evidence establishes that the Respondents were very small contributors to the PCB contamination and that S/P are responsible for the vast majority of PCBs at the Anniston PCB Site.

In Akzo Coatings of America, Inc. v. American Renovating, 842 F. Supp. 267 (E.D. Mich. 1993), (cited at page 12 of the S/P's Legal Comments), the court noted that the policy behind CERCLA contribution protection provisions is to encourage early settlement with the government without the fear of facing a future contribution action. In Akzo, the court determined that the matters addressed were limited to claims brought by the United States and not for costs incurred by private parties. The court began its analysis by looking at the language of the settlement, bearing in mind the particular hazardous substance at issue in the settlement, the location or site in question, the time frame covered by the settlement and the cost of the cleanup. Id. at 273 Here, the "matters addressed" provision in the Agreement is broader, based upon EPA's application of the *de minimis* provisions of CERCLA and upon consideration of factors such as those considered by the court in Akzo. In other words, as *de minimis* contributors of PCBs to the PCB Site, in this case, the United States has affirmatively made a determination, in accordance with CERCLA Section 122(g), that the Agreement is a fair and reasonable settlement of Respondents' total PCB liability for the PCB Site. S/P make a number of false statements in an attempt to attack the fairness of the Agreement in their Legal Comments. For example, at page 17 of the S/P Legal Comments, S/P state that "there are properties containing PCBs located in areas of Anniston where PCBs could not have migrated from the Anniston Plant." S/P further state that the "United States cannot offer any logical explanation for its theory that PCBs from the Anniston Plant came to be located in residential yards outside the floodplain." As described in great detail in this Response to Comments, EPA has determined, based on extensive evidence of releases through a variety of pathways, that the Monsanto PCB Plant did release PCBs to the larger Anniston area, beyond the 11th Street Ditch and its downstream floodplain. As explained at length above, S/P's entire argument rests on the false presumption that PCBs from the Monsanto PCB Plant could not possibly have reached beyond the 11th Street Ditch and its downstream floodplain. For example, each of the expert reports relied upon by S/P seem to be based to a large extent on the assumption that no air emissions of PCBs from the Monsanto PCB Plant migrated to residential areas in Anniston. However, none of S/P's experts address, as EPA has herein, any of the clear evidence from internal Monsanto documents demonstrating that substantial amounts of PCBs were emitted to the air from Monsanto's PCB plant for approximately forty years. S/P's experts even go so far to assert, in support of the argument that no significant air emissions occurred, that Monstanto's landfills were engineered in a way that air emissions from the landfills could not have occurred. See Menzie Report, pg. 46. Yet, as discussed above, for decades the Monsanto landfills were operated as open dumps with no engineered barriers. Even S/P's

own cited expert, Dr. Mitchell Erickson, stated that volatilization of PCBs from landfills was a primary source of PCBs in the global environment. See Footnote 27 above. EPA discussed these issues above and need not repeat them here. However, it is clear that S/P's position and S/P's experts are disconnected from the true facts of this case.

S/P also argue that EPA is prematurely settling with the Respondents before S/P completes a comprehensive site evaluation that may provide further information about PCB releases from the Respondents. S/P is wrong to characterize the settlement as premature. As discussed above, EPA has conducted a thorough investigation of potential PCB releases by the Respondents. In addition, EPA's analysis of the fairness of the settlement proposed in the Agreement also assumed a worst-case scenario, wherein all of the PCBs likely to have been used or disposed by the Respondents are presumed to have been released at the Anniston PCB Site. Even using this approach, as discussed in detail above, the Respondents' contribution of PCBs to the PCB Site is minimal, or *de minimis*, in comparison to the total volume of PCBs at the PCB Site. Moreover, as noted above, if new evidence demonstrates that the Respondents are not *de minimis*, the Agreement can be reopened and EPA can pursue the Respondents for a greater contribution. In addition, CERCLA specifically directs EPA to enter into *de minimis* settlements "whenever practicable" and "as promptly as possible." See Section 122(g)(1) of CERCLA.

Another claim by S/P is that the cleanup structure of the Agreement is generally arbitrary. In support of their argument, S/P complain that they have learned that a foundry employee placed 55 gallon drums containing PCBs on his property, and if S/P refuse to remediate that property, the Respondents will not be obligated to address the property unless it also has lead levels above 400 ppm. See S/P Legal Comments, pg. 17, fn 7. S/P's reference is cryptic and does not indicate which foundry the employee worked for, or whether the employee even obtained the drums from the foundry or from some other source. EPA previously required S/P to provide all information they have on releases of hazardous substances in and around Anniston. However, in March 2005, S/P informed EPA that they had only provided EPA with 10% of all the information they had regarding such releases. Whether the property S/P refer to in their Legal Comments is included in the 90% of the information S/P held back, EPA can only guess. Nevertheless, EPA has information from ADEM files showing that Dresser Industries (now DII Industries, LLC) cleaned up drums and soil contaminated with PCBs from transformer oil and lead from Mr. Rudolph Perkins property in 1985, over twenty years ago. If this is the property S/P are referring to in their Legal Comments, it is unlikely they will be asked to clean it up because Dresser Industries has already done so.

4. EPA followed the express language of CERCLA and its Guidance documents in determining the Respondents were entitled to a *de minimis* settlement for the Anniston PCB Site.

As S/P points out, in determining whether a party is entitled to a *de minimis* settlement, the statute requires EPA to consider the amount and toxicity of the hazardous substances contributed by that party to the facility. See Section 122(g)(1)(A)(i) and (ii). As discussed in detail above, that is precisely what EPA did here.

There is no reason to consider PCBs contributed by the Monsanto plant as being less toxic than PCBs contributed by the Respondents. Monsanto manufactured and released the same PCBs that the Respondents potentially released, and therefore, the Respondents' PCBs were no more toxic than those released by Monsanto. In fact, the solid PCBs, such as Aroclors 1268 and 1269, that were released by Monsanto are more likely to persist in the environment thereby causing longer term threats to human health and the environment. In any event, EPA has focused its efforts on analyzing the total amount of PCBs contributed to the facility by the Respondents, compared to the total amount of PCBs contributed by all persons to the PCB facility, including S/P.[74] Monsanto's records indicate that approximately 680,000,000 pounds of PCBs were manufactured at the plant. During its operational history, the plant released tens of millions of pounds of PCB wastes into the Anniston environment through various pathways, including two large dumps, now described as landfills, adjacent to the manufacturing plant. Compared to Monsanto, EPA has determined that the Respondents each contributed well less than 1% of the PCBs released to the PCB Site, and therefore, the Respondents qualify for *de minimis* status.

Here, the Anniston PCB Site or "facility" includes the open dumps used by Monsanto for decades during which Monsanto disposed of tens of millions of pounds of PCBs. S/P challenges EPA's *de minimis* determination by attacking EPA's treatment of all of the areas of PCB contamination in Anniston as one "facility." If EPA would just set aside the millions of pounds PCBs that Monsanto placed in the open dumps and call the Monsanto plant site and landfills a separate facility, S/P argues, then the proportional PCB contribution of the Respondents to the remaining areas of Anniston goes up. However, as discussed at length above, EPA's determination that all of the PCB contamination in the Anniston area constitute one facility is longstanding, consistent with

[74]In estimating the volume of PCBs contributed by the Respondents EPA has conducted a worst case analysis under which all PCBs in use by a Foundry were assumed to have been released at the PCB Site. Obviously, this is not the actual case, as Foundry documents confirm that PCB containing transformers, for example, have in many instances been disposed of properly in accordance with applicable regulations.

CERCLA, and promotes the efficient management of EPA's resources in responding to the Anniston PCB Site. Further, as shown above, S/P have already agreed in the PCD that the residential properties are part of "the Site," and that "the Site" is one facility. Nothing in CERCLA dictates that EPA limit, alter, or revisit a facility definition to serve a PRPs argument regarding the *de minimis* status of another PRP.[75] This is especially true when it is clear that PCBs from Monsanto's operations have migrated widely throughout the Anniston area.

S/P also challenges EPA as arbitrarily including Monsanto's landfills in the "facility" but not including the Respondents' landfills in the "facility." See S/P Legal Comments, pg. 21. This argument is absurd, as millions of pounds of PCBs were known to have been disposed of for decades in Monsanto's open, unlined, uncapped, uncontrolled dumps. As discussed above, PCBs from those dumps migrated through multiple pathways to other areas of Anniston. In contrast, at present, there is no evidence that PCBs are present in the Respondents' landfills in any significant quantity.[76] Moreover, Respondents' landfills presently do not warrant any response activities, while S/P's dumps are specifically an Operable Unit being evaluated under CERCLA. S/P does not explain how the addition of the Respondents' landfills with no significant PCB contamination would alter EPA's *de minimis* determination.

In the portion of the S/P Legal Comments attacking EPA's *de minimis* determination, S/P repeats its contention that it is premature for EPA to make such a determination when relevant information will continue to be developed during the implementation of response actions at the Site. Again, this contradicts the express direction in CERCLA Section 122(g)(1) that EPA enter into such settlements "as promptly as possible." Further, as noted above, EPA retains the right to reopen the *de minimis* settlement if new is discovered which shows that the settlement is not appropriate.

Furthermore, EPA's decision to provide a *de minimis* settlement is arguably not subject to judicial review. Section 122(g)(10) states that "[a]s soon as practicable after receipt of sufficient information to make a determination, the President shall notify any person that the President determines is eligible under paragraph (1) of the person's eligibility for an expedited [*de minimis*] settlement." Section 122(g)(11) says that EPA's

[75]S/P falsely asserts that it is inappropriate to include the Monsanto landfills in the "facility" because they are being addressed separately under RCRA. As S/P knows, the landfills are being addressed as part of EPA's CERCLA response, and have been designated as an Operable Unit of EPA's response action under CERCLA at the PCB Site.

[76]There are a few isolated samples indicating some PCBs at Respondents' landfills but nothing indicating that PCBs are in the landfills in any quantity or that they warrant any response action.

determination under paragraph (10) "shall not be subject to judicial review." Nevertheless, S/P have been provided an opportunity to present evidence regarding the contribution that the Respondents made to the PCB contamination in Anniston, and EPA has considered all of the comments it has received, including those submitted by S/P. As discussed throughout this Response to Comments, EPA has found S/P's comments unpersuasive.

5. S/P are PRPs for Lead Contamination at the Anniston Lead Site.

S/P argue that they are not potentially responsible parties (PRPs) for lead contamination at the Anniston Lead Site. S/P's position is at odds with the facts established by their own documents and with CERCLA liability law.

S/P used significant amounts of lead in its manufacturing processes. The Monsanto plant utilized a lead pot process to produce biphenyl from the beginning of 1928 until sometime between 1961 and 1964. In addition, significant quantities of lead were emitted from the ferroy-alloy process which began at the plant in 1917. A detailed discussion of evidence confirming releases of lead from the ferro-alloy process and Monsanto's use of lead in the lead pot process is set forth above. Notwithstanding the clear evidence that releases of lead, in fact, occurred from the plant site, S/P argue that they are not PRPs for lead contamination.

S/P argue that they are not PRPs for the Anniston Lead Site because they did not contribute a "significant" amount of lead into the environment, and that any lead they contributed did not cause the incurrence of response costs. However, there are no threshold requirements of an amount to have been released into the environment to establish liability under CERCLA. [77] Virtually every single court to address the issue has held that there is no quantitative or threshold concentration necessary to establish liability under CERCLA. See, e.g., United States v. Western Processing Company, 734 F. Supp. 930 (W.D. Wash. 1990); Stewman v. Mid-South Wood Products, Inc., 993 F.2d 646 (8th Cir. 1993); Cook v. Rockwell, International Corp., 147 FRD 237 (D.C. Colo. 1993); Amoco Oil Company v. Borden, Inc., 889 F. 2d 664 (5th Cir. 1989); United States v. Alcan Aluminum Corp., 755 F.Supp 531 ((N.D. N.Y. 1991); United States v. Carolina Transformer Co., 739 F. Supp. 1030 (E.D. N.C. 1989).

Moreover, the United States need not prove that a specific defendant's waste

[77] Section 107(o) does provide a liability defense to certain "*de micromis*" parties that release less than 200 pounds of a hazardous substance. However, S/P makes no reference to that section because it is not applicable in this instance.

caused it to incur response costs. Memphis Zane May Associates v. IBC Mfg. Co., 952 F. Supp. 541 (W.D. Tenn. 1996). The United States is not required to "fingerprint" a particular party's hazardous substances. To impose strict liability under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), the government need only show that: 1) the defendant is a "covered" person; 2) there has been a release or threatened release of a hazardous substance; 3) the release or threatened release has caused the plaintiff to incur response costs; and 4) the site in question is a "facility" as defined in Section 109 of CERCLA, 42 U.S.C. § 9601(9).[78] Southfund Partners III v. Sears, Roebuck and Co., 57 F. Supp. 2d 1369, 1375-76 (N.D. Ga. 1995)(citing Redwing Carriers, Inc., v. Saraland Apartments, 94 F. 3d 1489, 1496-97 (11th Cir. 1996).[79] In United States v. Alcan Aluminum Corp., 990 F. 2d 711 (2nd Cir. 1993)("Alcan I"), the court said "[W]hat is *not* required is that the government show that a specific defendant's waste caused incurrence of clean-up costs." Id. at 721.

S/P rely on Alcan I and the Second Circuit's later decision in the same matter, United States v. Alcan Aluminum Corp., 315 F.3d 179 (2nd Cir. 2003)("Alcan II") for the proposition that a party cannot be held liable under CERCLA when its contribution to a site did not exceed natural background contamination levels and did not trigger the incurrence of response costs. However, these cases set up an extremely narrow circumstance which places the burden on a defendant to prove that it has not caused any response costs or contributed more than natural background levels of a contaminant. Because a defendant bears the burden of proof as to causation, a defendant, to survive summary judgment, must come forward with sufficient evidence from which a jury could find that the defendant was not the source of the contamination. Westfarm Associates, Ltd. Partnership v. Washington Suburban Sanitary Commission, 66 F. 3d 669, 681 (4th Cir. 1995). The United States submits that S/P have not and cannot present evidence showing that the large amounts of lead that they used for decades in their manufacturing processes, portions of which were known to have been released into the environment, could not have been at least part of the source of the contamination of the residential properties in the Anniston area.

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[78] The term "facility" means (A) any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or (B) any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel. 42 U.S.C. § 9601(9). (Emphasis added.)

[79] It should also be noted that there are only three defenses to liability under CERCLA and courts have routinely held that they are narrow and limited so as to not defeat the broad remedial purposes of CERCLA. See Violet v. Picillo, 648 F. Supp. 1283, 1293 (D.R.I. 1986)("The defenses provided in section 107(b) are very narrow defenses; they require that the release and damage be caused *solely* by acts of God, war, or acts of omissions of a third party. These affirmative defenses essentially serve to shift the burden of proof of causation to the defendants.")

Other courts have also followed the intent of Congress of eliminating the element of causation from the plaintiff's liability case. For example, the court in Matter of Bell Petroleum Services. Inc., 3 F. 3d 889, (5th Cir. 1993), noted that contrary to the rule in most areas of the law, the burden of proof as to causation in a CERCLA case lies with the defendants. The court further held that the plaintiff must only prove that contaminants which were once in the custody of the defendant could have traveled onto the plaintiff's land, and that subsequent contaminants (chemically similar to the contaminants once existing in defendant's custody) on the site caused the plaintiff to incur response costs. (Emphasis added) Id. at 893 n. 4. Also see New York v. Shore Realty, 759 F. 2d at 1044, United States v. Wade, 577 F. Supp. 1326, 1382 (E.D. Pa. 1988)("To require a plaintiff under CERCLA to 'fingerprint' wastes is to eviscerate the statute."); United States v. Bliss, 667 F. Supp. 1298 (E.D. Mo. 1987)("traditional tort notions, such as proximate cause do not apply" in CERCLA).

In support of their assertion that they are not PRPs for lead contamination, S/P state that lead levels on S/P's property do not exceed background levels of lead contamination. This is the same argument that S/P make with respect to PCBs. However, as discussed at length above in Section V.B.3.a.ii., S/P "cleaned up. . . its plant site a long time ago. . . ." See S/P Comments, pg. 10. Accordingly, current levels of lead contamination on the property are not indicative of actual conditions during periods of documented historic releases of lead. The evidence as a whole confirms that Monsanto was releasing lead into the Anniston environment for many years, and thus, S/P is unable to prove that their releases of lead have not caused any response costs.

6. The entry into the Agreement between the United States and the Respondents does not constitute a takings under the Fifth Amendment to the United States Constitution.

In their Legal Comments, S/P claim that the Agreement effects a constitutional taking of their contribution rights. S/P's claim fails because the only contribution rights that S/P possess are both provided **and limited** by Section 113(f) of CERCLA. As noted above, even as Section 113(f)(1) establishes the right of PRPs to seek contribution, Section 113(f)(2) confers protection from such contribution actions on persons who resolves their liability to the United States in an administrative or judicially approved settlement. Moreover, Section 113(f)(3)C) mandates that the contribution rights of a person "shall" be subordinate to the rights of the United States. Thus, when a contribution claim is impaired by the contribution protection conferred in a settlement with the United States, no property interest is taken.

In recognition of the limited nature of contribution rights under CERCLA, courts

have held that no constitutional taking occurs when a PRP's contribution claims are limited by the contribution protection conferred in a CERCLA settlement. For example, in United States v. BP Amoco Oil PLC, 277 F. 3d 1012, 1017 (8th Cir. 2002), the court held that a PRP's contribution rights were not "vested property rights" because they were statutory and could be taken away by section 113(f)(2) of CERCLA. Similarly, the court in United States v. Cannons Engineering Corp., 899 F.2d 79, 92 n. 6 (1st Cir. 1990), held that since federal common law provides no right to contribution, CERCLA's contribution protection provision does not deprive any party of a "constitutionally protected interest." As the District Court in Cannons Engineering stated, "it appears there is no common law federal right to contribution in a CERCLA case. Rather, 42 U.S.C. 9613(f)(1) both established and defined, rather than removed, the right of a joint tortfeasor to contribution in CERCLA cases." United States v. Cannons Engineering Corp., 720 F.Supp. 1027, 1045 (D. Mass. 1989), aff'd, 899 F.2d 979 (1st Cir. 1990).

S/P attempt to evade the clear import of CERCLA and its caselaw by asserting that they have unique and extraordinary contribution rights which are "not solely derived from section 113(f) of CERCLA," but are "specifically provided for in the PCD." As explained in Section V.C.1. above, S/P present an erroneous interpretation of the PCD. The PCD did not confer any extraordinary contribution rights beyond those created under CERCLA; rather, in the PCD, S/P simply reserved their contribution rights under CERCLA; and the United States similarly reserved its own, superior rights to take action which limits S/P's contribution rights. In the PCD, S/P simply reserved the same statutory contribution rights as those reserved in similar boilerplate "reservation of rights" provisions that are typical in CERCLA settlements to which the United States is a party.[80]

S/P's reliance upon Waste Management, Inc. v. City of New York, 910 F. Supp. 1035 (M.D. Pa. 1995), and United States v. Nalco Chemical Company, 1996 US DIST LEXIS 13089 (N.D. Ill. 1996) is misplaced. The holding in Waste Management was expressly based on the scope of "matters addressed" in a CERCLA Section 122(h) cost recovery settlement, and the court held that contribution protection in a 122(h) settlement did not extend to matters beyond claims for the costs incurred by the United States and addressed in the settlement. The Waste Management court, at page 1041, specifically distinguished the broad scope of contribution protection that is conferred in CERCLA Section 122(g) *de minimis* settlements. Since the Agreement with the Respondents is a *de minimis* settlement under Section 122(g), the Waste Management case actually provides

[80]S/P have not, and could not, point to any provision of the PCD which differs in any substantive way from the reservation of rights provisions included in all EPA settlements. Thus, S/P's assertion that the PCD granted to them unprecedented and extraordinary rights to block EPA's authority to settle with other PRPs in connection with the Anniston PCB Site is a fiction.

support for EPA's position.

Although S/P also relies on the Nalco case, it does not support S/P either. In Nalco, the court confirmed that EPA has "sweeping power . . .to extinguish the contribution rights third parties would otherwise enjoy under [CERCLA]." Nalco, 1996 U.S. Dist. LEXIS 13089, at 19-20, *quoting* Akzo Coatings, 30 F.3d at 768. The Nalco court held that when EPA exercises such power, it will be upheld if the agency provides "a plausible explanation for it," linking the contribution bar to a reasonable apportionment of liability. Id. at 19. EPA has at length explained the basis for its determination that the Respondents are *de minimis* parties at the Anniston PCB Site, and that the substantial contribution to the Anniston PCB Site that is required of the Respondents under the Agreement represents a fair apportionment of responsibility. Thus, the Nalco case provides no support for S/P's claim that the Agreement results in a constitutional taking.[81]

S/P also make a due process argument, claiming that they should not be deprived of their contribution claims without access to judicial process, as is available when the settlement at issue is entered pursuant to a Consent Decree. S/P contend that the public notice and comment procedures available to them under the Agreement are inadequate. S/P cite General Time Corp. v. Bulk Materials, Inc., 826 F. Supp. 471, 476 (M.D. Ga. 1993) as support for this argument. However, the General Time court held that contribution protection was not conferred by the settlement in that case for two reasons not present here: (1) the settlement at issue was entered pursuant to a state law, and the court held that Congress did not intend settlements entered under state environmental laws to confer CERCLA contribution protection, and (2) the settlement at issue in that case did not allow for public notice and comment. The court held that due process required that procedural safeguards such as the notice and public comment available in the case of CERCLA cost recovery and *de minimis* settlements must be observed before extinguishing a party's contribution rights. S/P have been provided notice and opportunity to comment on the proposed settlement, and General Time therefore does not support S/P's argument.

In addition, S/P rely on United States v. Alcan Aluminum, Inc. 25 F.3d 1175 (3rd Cir. 1994), for the proposition that CERCLA's notice and comment provisions do not

[81]United States v. Charter Int'l Oil Co., 83 F. 3d 510 (1st Cir. 1996), cited at page 28 of the S/P's Legal Position, also provides no support for S/P's argument that the Agreement constitutes a takings under the fifth amendment. That case does not even discuss takings. It is not clear why S/P have discussed this case in the section of the S/P Legal Position claiming that the Agreement works an unconstitutional taking.

adequately protect an early settlor's contribution rights.[82] In that case, it is true that the court did express concern about the effect of cutting off an early settlor's contribution rights. However, the court said that it could not ignore the clear and unambiguous language of section 113(f)(2) of CERCLA. Id. at 1186, n. 17. Section 113(f)(2) states that any person who has resolved its liability to the United States in an administrative settlement or judicial consent decree shall not be liable for claims in contribution regarding matters addressed in the settlement. The court said that, notwithstanding its concerns about the wisdom of so limiting an early settlor's contribution rights, "any change in the statutory scheme must come from Congress." Id. at 1186, n. 17.

The Alcan court's unease, and S/P's complaint, are a result of the balance that Congress has struck among competing interests. On one hand, Congress sought to encourage early settlement by conferring contribution rights on parties voluntarily[83] entering into early cleanup agreements with EPA. On the other hand Congress sought to protect *de minimis* settlors from costly litigation. Further, Congress expressly made the contribution rights of early settlors subordinate to EPA's right to enter into any settlements, including *de minimis* settlements. S/P is wrong to equate Congress' balancing of competing interests to a taking simply because Congress did not create contribution rights as broad as S/P would like to assert in this particular case.

Moreover, S/P's argument that the public notice and comment procedures are inadequate to protect S/P's contribution rights from an unconstitutional taking fails when evaluated in the context of the language of Section 308 of CERCLA. Section 308 of CERCLA provides:

> *If an administrative settlement under section 9622 [Section 122 of CERCLA] of this title has the effect of limiting any person's right to obtain*

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[82] S/P cite incorrectly to United States v. Alcan Aluminum Corp., 990 F. 2d 711 (2nd Cir. 1993), but it is clear that they intended to cite to United States v. Alcan Aluminum, Inc. 25 F.3d 1175 (3rd Cir. 1994), because the page number that they refer to is 1186 which is not a page number in the cited case, but page 1186 of the later Alcan case contains relevant discussion. Additionally, Defendants cite to a footnote to support their arguments, but there are no footnotes in the cited Alcan case while the later Alcan case has relevant footnotes.

[83] S/P attempt to portray themselves as early settlors who voluntarily stepped up to the plate and cooperated with EPA. Once again, S/P's version of history is belied by the facts. After exhausting their efforts to get S/P to investigate PCB contamination beyond the 11th Street Ditch and its downstream floodplain, in 1999, ADEM requested that EPA get involved to ensure that S/P investigated such contamination. Then, within months of the PCD being entered, Solutia attempted to set aside their cleanup obligations under it, using their bankruptcy filing as a shield. Additionally, S/P's ongoing attempts to avoid addressing their PCB legacy under the PCD, are hardly the type of actions that would characterize any party as a cooperative, early settlor.

contribution from any party to such settlement, and if the effect of such limitation would constitute a taking without just compensation in violation of the fifth amendment to the Constitution of the United States, such person shall not be entitled, under other laws of the United States, to recover compensation from the United States for such taking, but in any such case such limitation on the right to obtain contribution shall be treated as having no force and effect.[84]

Section 308 contemplates that a court may have the opportunity to determine whether any party who has had their contribution rights curtailed by a CERCLA administrative settlement has suffered an unconstitutional taking. This issue will be presented by S/P to the court where their contribution action is pending against the Respondents. After the Agreement becomes effective, the Respondents can be expected to file a motion for summary judgment or dismissal on the ground that, through the Agreement, CERCLA provides them with contribution protection, thereby, insulating them from S/P's contribution claims. S/P will counter that, under Section 308, the contribution protection conferred by the Agreement should be given "no force and effect" because it would have the effect of a taking.[85] The court presiding over the contribution action, will then be required to determine whether S/P suffered a taking, and Section 308 compels the court, if it does find a taking, to give the contribution protection no force and effect and allow the S/P's contribution action to go forward. Given that S/P has had ample procedural process through the comment period and recourse to judicial process through CERCLA Section 308, S/P's due process arguments have no validity.

EPA does not believe that S/P have suffered an unconstitutional taking or due process violation as a result of the impairment of any contribution rights affected by the Agreement. First, S/P's contribution rights are both created and limited by CERCLA. Accordingly, no unconstitutional taking occurs when the effect of a CERCLA settlement is to impair those contribution rights as prescribed in CERCLA. Second, the notice and public comment process afforded under CERCLA is adequate from a constitutional

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[84]S/P contend that Section 308 of CERCLA demonstrates that "Congress recognized the possibility that an administrative settlement could result in an unconstitutional taking under the Fifth Amendment." However, there is nothing in the legislative history to suggest that Congress believed the curtailment of contribution rights **would** constitute a taking. Rather, it seems more likely that Congress was acting in an abundance of caution to ensure that the government did not have to pay takings claims in the unlikely event that the curtailment of contribution rights effected by a CERCLA settlement would be deemed a taking by a court in a particular case.

[85]S/P have already asserted, at page 28 of the S/P legal position, that they "will urge the Court in [their contribution action] to find that the contribution provisions of the Lead Site Agreement should be given no force or effect, pursuant to Section 308 of CERCLA. As explained above, EPA does not believe a taking has occurred, but EPA recognizes that S/P has a right to pursue this argument before Judge Greene.

perspective and EPA has carefully considered all of S/P's comments regarding the Agreement. Further, S/P's due process argument is without merit because S/P will have the opportunity to present its taking argument to a court. If a court disagrees with EPA and finds that the Agreement effects an unconstitutional taking of S/P's rights, it will be compelled by Section 308 of CERCLA to declare the contribution protection provisions of the Agreement to be of no force or effect and allow S/P's contribution action to continue.

VII. Addendum: EPA Response to S/P's Second Supplemental Comment

On December 19, 2005, S/P submitted a second supplement to their original comments to the Agreement ("Second Supplement"). This Second Supplement was submitted more than two months after the close of the public comment period, less than one week before Christmas, and only two weeks before the January 6th 2006, effective date for the Agreement. Notwithstanding the last minute nature of the submittal, EPA has reviewed and considered the Second Supplement. However, the Second Supplement does not contain any information which affects EPA's determination that the Agreement should become effective. In light of the late nature of the Second Supplement and the lack of information which warrants any change in EPA's decision, EPA will only briefly address the Second Supplement in this addendum section to the Response to Comments.

EPA notes that the Second Supplement appears to have been hurriedly compiled: portions of it are confusingly written and several of the points it raises seem to directly support EPA's decision. For example, one section is entitled "Lack of Relationship between Lead and PCBs." In that section S/P make the argument that lead concentrations found in Anniston do not correlate with PCBs. S/P concludes " If lead and PCBs had a single source, a type of waste stream generated by a single source, some correlation would be expected." EPA agrees. There is no correlation between the presence of lead and PCBs in Anniston. While there are areas of overlapping contamination, the pattern of PCB and lead deposition in Anniston indicates that they came from different sources. That fact completely supports EPA's overall conclusion that the primary source of PCBs found throughout Anniston was Monsanto, while the primary source of lead contamination was the Anniston Industrial Operations, including the Respondents. Respondents contributed *de minimus* amounts of PCBs. Monsanto likely contributed lead to the Anniston area at a level similar to amounts released by individual Respondents, but overall, the data cited by S/P supports EPA's conclusion that the majority of the PCBs came from Monsanto and the majority of the lead from the Anniston Industrial Operations.

In the Second Supplement, S/P also raise several issues regarding Aroclor 1268. This Response already deals with those issues at length above. In order to challenge the conclusion that the widespread deposition of Aroclor 1268 in Anniston is attributable to Monsanto operations, S/P challenges EPA's sampling methods that S/P has been implementing for the past four years. Evidently, S/P had no problem with the sampling procedures until they revealed evidence that S/P did not like.[86] However, assuming the

[86]S/P's claim is spurious. Dr. Carl Orazio of the USGS Columbia Environmental Research Center analyzed the sample results and concluded that the identification of 1268 was accurate. See Exhibit 95.

credibility of the finding of Aroclor 1268, S/P also claim that they have recently discovered proof that the Respondents used "investment casting wax" with PCBs in their operations. This issue is addressed in the main Response to Comments in Section V.B.3.a.v. above. However, it is worthy of note again that S/P's evidence is for a company, Southern Tool, that is not a Respondent, does not generate foundry sand, and produces entirely different types of castings which, unlike the Respondents' operations, used "investment casting wax."

In an effort to avoid their own corporate evidence documenting their releases of PCBs, in their Second Supplement, S/P attacks the contemporaneous scientific analysis of its own employees as "faulty." There is nothing to support S/P's present day attempts to rewrite their own historical documents. Monsanto management tasked employees to conduct studies on PCB releases and those employees did the work. Monsanto's historic documents say what they say. There is no reason why the factual results of Monsanto's analysis of their own PCB releases, recorded contemporaneously with their occurrence, should be questioned 35 years later. S/P's attempt to cross-exam its own records is simply incredible.

Finally, it is clear from S/P's Second Supplement, that S/P wants EPA to stop the Agreement from becoming effective so that S/P can continue an evidentiary "fishing expedition" in their contribution lawsuit against Respondents. Monsanto's historic documents make it clear that Monsanto began developing strategies to deal with their potential future liability for its PCB releases as early as the 1960s. S/P was informed by ADEM as early as 1995 that ADEM expected S/P to address contamination outside the floodplain. In state court, S/P litigated PCB related tort claims brought against them for over six years and in that trial unsuccessfully tried to pass the responsibility for the PCB contamination in Anniston to the Respondents and others. S/P have also been litigating their contribution lawsuit against the Respondents for over two years. S/P have had ample time and opportunity to develop evidence regarding Respondents' PCB releases. Yet S/P urges EPA to delay the Agreement, jeopardizing the cleanup it calls for, because "[i]t is essential to our [S/P's] case . . ." that they be given time to try to find evidence to support their allegations. The type of "fishing expedition" nuisance lawsuit that S/P are pursuing against the Respondents is exactly the type of lawsuit that prompted Congress to write Section 122(g) of CERCLA. Monsanto and S/P have had decades to develop credible evidence that they are not the main source of PCB contamination in the Anniston area. They have failed to do so, not from lack of time or effort, but because the evidence simply does not support their position.

TABLE OF EXHIBITS

Exhibit	1	"Streamlined Risk Evaluation for the Residential Areas Anniston PCB Site," prepared by U.S. EPA, dated October 2002
Exhibit	2	Letter from ADEM to Solutia, Inc. re: "Request for RCRA Activities Associated with Remote Off-Site Residential Areas," dated September 8, 1999
Exhibit	3	Solutia Inc. Bankruptcy Court filing *Adversary Complaint for Declaratory Judgment*, dated February 26, 2004
Exhibit	4	Northern District of Alabama ORDER denying "Solutia's Motion to Reconsider, Modify or Clarity the Declaration of the Inapplicability of the Automatic Stay," dated September 9, 2004
Exhibit	5	Eleventh Circuit dismissal of appeal
Exhibit	6	Letter from Pam Scully, EPA, to Craig Branchfield, dated September 1, 2005
Exhibit	7	"Evaluation of Monsanto's Biphenyl Lead Pot Process for Fugitive Lead Air Emissions at the Anniston Plant," prepared by Jon Beihoffer, dated May 27,2004
Exhibit	8	"Evaluation of the Ferroalloy Production for Lead Air Emissions at Monsanto's Anniston Plant," prepared by Jon L. Beihoffer, dated December 2005
Exhibit	9	EPA Orphan Share Guidances, dated June 3, 1996 to August 8, 2002
Exhibit	10	United States' Pleadings re: Partial Consent Decree Dispute
Exhibit	11	"Childhood Blood Lead Screening Project, Anniston, Alabama" report, dated January 2002, and "Health Consultation" report, dated March 11, 2003, prepared by ATSDR.
Exhibit	12	Jury Verdicts, dated June 24, 2003 to August 13, 2003, and Monsanto's Motion to Vacate Verdicts, dated August 13, 2003, in *Sabrina Abernathy, et al. v. Monsanto Company, et al.*
Exhibit	13	Deposition of Bruce Maisel, dated April 10, 2003
Exhibit	14	"Progress Report, Technical Services Department, Anniston, Alabama Plant," dated September 14, 1970
Exhibit	15	"Diphenyl and Chlorinated Diphenyl Derivatives" report, prepared by Rogers McCullough and E.H. Buford, dated June 1935.
Exhibit	16	Monsanto "Finished Product Specification" on Aroclor 1268, dated March 11, 1966.
Exhibit	17	"MCC Warehouse Interim Measures Report," prepared by Roux Associates, Inc., dated September 6, 2002.
Exhibit	18	"The Handling of Aroclors (Chlorinated Diphenyl)" Mons 057354
Exhibit	19	Monsanto memo, prepared by Paul B. Hodges, dated September 18, 1970
Exhibit	20	Letter from W. B. Papageorge to G. L. Jessee, dated August 17, 1970

Exhibit	21	"Progress Report, Technical Services Department, Anniston, Alabama Plant," dated July 21, 1970
Exhibit	22	Monsanto memo re: "Recommendations of Task Force on Plant Dump," dated March 31, 1970
Exhibit	23	Expert Report of Dr. Allen Medine
Exhibit	24	World Health Organization report on Polychlorinated Biphenyls and Terphenyls, dated 1993
Exhibit	25	"PCBs: Cancer Dose-Response Assessment and Application to Environmental Mixtures,"prepared by EPA, dated September 1996
Exhibit	26	"Technical Report Evaluation of Monsanto's Polychlorinated Biphenyl (PCB) Process for PCB Losses at the Anniston Plant," prepared by Jon L. Beihoffer, dated March 2005
Exhibit	27	Monsanto memo re: Aroclor, to W. A. Kuhn from W. R. Richard, dated December 30, 1968
Exhibit	28	"Process for the Manufacture of Diphenyl & Santowax," prepared by E. Mather, dated November 1950
Exhibit	29	"The Determination of Aroclor Concentrations in the Atmosphere at Monsanto Chemical Company's Anniston, Alabama Plant"
Exhibit	30	"Report of Aroclor 'Ad Hoc' Committee," dated October 2, 1969
Exhibit	31	"Minutes of Aroclor 'Ad Hoc' Committee First Meeting," dated September 5, 1969
Exhibit	32	Monsanto memo re: "Aroclor Losses to the Atmosphere at the HCI Scrubber Jet," from F. D. Ramsey to E. G. Wright, dated September 4, 1970
Exhibit	33	Monsanto memo re: "P.C.B. Levels in Ambient Air at Anniston Plant," from Eugene G. Wright to W. B. Papageorge, December 29, 1970
Exhibit	34	Monsanto memo re: "P.C.B. Losses to Atmosphere at Anniston Plant," from E. G. Wright to W. B. Papageorge, dated January 18, 1971
Exhibit	35	Monsanto memo re: "Minutes - 12/4/70 Meeting on Aroclor Manufacturing Sites," prepared by J. R. Savage, dated December 9, 1970
Exhibit	36	Monsanto memo re: "Aroclor - Wildlife: Incineration of NCR Paper," from E. S. Tucker to W. R. Richard, dated March 4, 1969
Exhibit	37	Monsanto memo re: "Disposal of Liquid-Solid Aroclor Trappings," to B. O. Severson, dated January 4, 1963
Exhibit	38	Solutia "SWMU Assessment Report MCC Warehouse Solutia Facility Anniston, Alabama," dated August 1, 2001
Exhibit	39	Monsanto "Near-Miss Accident Investigation" re: "Explosion and Fire in Biphenyl Flaking-Packaging System," dated April 9, 1969

Exhibit	40	Monsanto "Hazardous Waste Management Facility Closure / Post-Closure Plan," dated June 1983
Exhibit	41	Solutia "RFI/CS Work Plan for the Anniston, Alabama Facility," dated November 1997.
Exhibit	42	U.S. EPA Final Report "PCBs in the United States Industrial Use and Environmental Distribution," dated February 25, 1976
Exhibit	43	"Certificate of Analysis" of Alabama Power sampling in West End Landfill, dated April 26, 1993, and ADEM Preliminary Assessment for the West End Landfill, dated March 15, 1994
Exhibit	44	Letter and sampling analysis from Monsanto to ADEM re: sampling performed pursuant to Consent Order No. 96-054-CHW, dated January 9, 1997
Exhibit	45	EPA Section 6(e) PCB Investigation Report, prepared by Raj J. Aiyar, dated June 5, 2001
Exhibit	46	Monsanto memo re: "PCB in Plant Effluent," from W. B. Papageorge to J. Savage, dated January 29, 1971
Exhibit	47	"October 2005 Progress Report Anniston PCB Site," prepared by Golder Associates for Solutia, dated November 9, 2005
Exhibit	48	PCB Map
Exhibit	49	Report of Mark H. Hermanson, Ph.D. in *Abernathy v. Monsanto*
Exhibit	50	"Preliminary Assessment of the Potential Contributions of PCB Air Emissions from the Solutia (formerly Monsanto) facility in Anniston, Alabama, to Measured PCB Soil Concentrations Near the Facility," prepared by Rick Gillam and Stan Krivo, dated April 29, 2005, and Addendum, dated November 18, 2005
Exhibit	51	Spot Elevation Map of Anniston, Alabama, dated December 27, 2004
Exhibit	52	Analytical Chemistry for Aroclors
Exhibit	53	Letter from Carl Orazio, USGS, to Mike Stephenson re: Aroclor 1268, dated December 20, 2005
Exhibit	54	PCB Production Figures from Solutia/Pharmacia Information Request Response
Exhibit	55	Anniston Star Article "Experts in PCB trial say levels near Solutia plant remain high," by Elizabeth Bluemink, dated January 18, 2002
Exhibit	56	"Chemical Specialties Data Report . . . Unique Property - Additives," dated November 1963
Exhibit	57	Monsanto "Plasticizer Patter," dated February 1961
Exhibit	58	Monsanto document entitled "The Aroclor Compounds," dated May 1962
Exhibit	59	EPA Memorandum re: sampling and foundry sand analysis, prepared by Tim Simpson, dated April 28, 2005

Exhibit	60	"Status of Anniston Sewer Study," dated January 25, 1967
Exhibit	61	Monsanto memorandum "New Sump below Plant Dump," dated October 29, 1970
Exhibit	62	U.S. EPA "Historical Aerial Photographic Analysis Anniston PCB Site," dated June 2001
Exhibit	63	Monsanto "Anniston Plant Technical Services Department Monthly Report," dated August 1970
Exhibit	64	Monsanto memorandum "PCB Environmental Problem November Status Report," prepared by W. B. Papageorge, dated December 7, 1970
Exhibit	65	Monsanto memorandum "Aroclor Environmental Program," prepared by W. B. Papageorge, dated March 6, 1970
Exhibit	66	Monsanto memorandum "Aroclors Clean-Up From Plant Effluents," dated May 12, 1969
Exhibit	67	Monsanto memorandum to Paul B. Hodges, re: Anniston Plant plans for "PCB determinations in liquid waste streams," dated May 12, 1969
Exhibit	68	EPA memorandum re: "Anniston PCB Site 9th Street Ditch," prepared by John Harkins, dated November 4, 2005
Exhibit	69	Documents re: FMC Corporation discovery of oil-type material in 9th Street Ditch
Exhibit	70	"11th Street Ditch Sediment Sampling Report," prepared for Solutia Inc. by Roux Associates, Inc., dated October 11, 2000
Exhibit	71	"Letter Report - Sediment Sampling Anniston PCB," prepared by Tetra Tech EM Inc., dated February 26, 2005
Exhibit	72	"A Reconnaissance Investigation of Polychlorinated Biphenyl Congeners in Aquatic Sediments Collected near Anniston, Alabama," prepared by U.S. Geological Survey, dated February 2005
Exhibit	73	Letter from City of Anniston to U.S. EPA re: "Request for information for the Anniston Lead Site and Anniston PCB Site," dated May 17, 2005
Exhibit	74	Redacted Anniston Lead Questionnaires, dated April 15, 2004, May 7, 2004
Exhibit	75	"Dredge Spoil Area RFI/CS Phase 1 Report Snow and Choccolocco Creeks," prepared for Solutia Inc. by Roux Associates, Inc., dated September 13, 1999
Exhibit	76	Redacted Declarations dated August 16, 2004
Exhibit	77	FMC memorandum re: "Anniston Environmental Concerns," prepared by Kabernagel to Landgraf, dated April 19, 1986
Exhibit	78	U.S. EPA "Streamlined Approach for Settlements With De Minimis Waste Contributors under CERCLA Section 122(g)(1)(A)," dated July 30, 1993
Exhibit	79	Husch & Eppenberger, LLC "Presentation to EPA & DOJ . . . Focus on Union Foundry," dated March 1, 2005

Exhibit	80	"EPA Volumetric Analysis for Anniston PCB Site"
Exhibit	81	"Anniston Lead Site and Anniston PCB Site AOC Cost Estimate / Breakdown"
Exhibit	82	"Final Summary Report of Technical Review and Evaluation of Potential PCB Releases Anniston PCB Site," prepared by U.S. EPA Environmental Response Team, dated May 9, 2001
Exhibit	83	Motion to Enter Revised Partial Consent Decree, *United States v. Pharmacia Corporation and Solutia Inc.*, dated October 18, 2002
Exhibit	84	Letter from ADEM to U.S. EPA re: "Anniston PCB Site" deferral, dated August 25, 2003
Exhibit	85	Letter from ADEM to U.S. EPA re: "Request for RCRA Activities Associated with Remote Off-Site Residential Areas Solutia Inc. Anniston Facility," dated September 8, 1999
Exhibit	86	Final Judgment and Order, *Antonia Tolbert, et al. vs. Monsanto, et al.*, dated September 9, 2003
Exhibit	87	Chemical Industry Archives "Monsanto Knew About PCB Toxicity for Decades"
Exhibit	88	Monsanto letter dated February 18, 1970
Exhibit	89	Monsanto memorandum re: "PCB Removal Technology," prepared by M. L. Mullins, dated February 23, 1972
Exhibit	90	Monsanto Production Cost Standards for Biphenyl, dated July 1, 1957
Exhibit	91	Anniston Star Newspaper article entitled "Manganese Co. Defendant in Unusual Case," dated August 12, 1919
Exhibit	92	Monsanto "Analysis of Anniston Plant Waste Streams for Metals," dated December 30, 1970
Exhibit	93	Monsanto correspondence re: lead in Monsanto products, dated 1973
Exhibit	94	Documents re: Monsanto burning of lead-contaminated Therminol
Exhibit	95	Letter from U.S. Geological Survey to U.S. EPA re: Aroclor 1268 analysis, dated May 27, 2005